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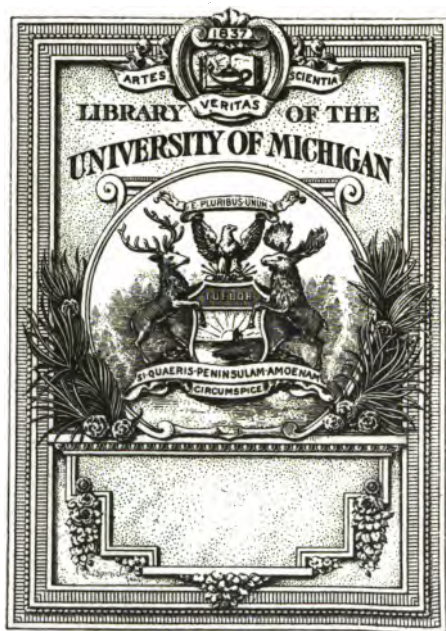
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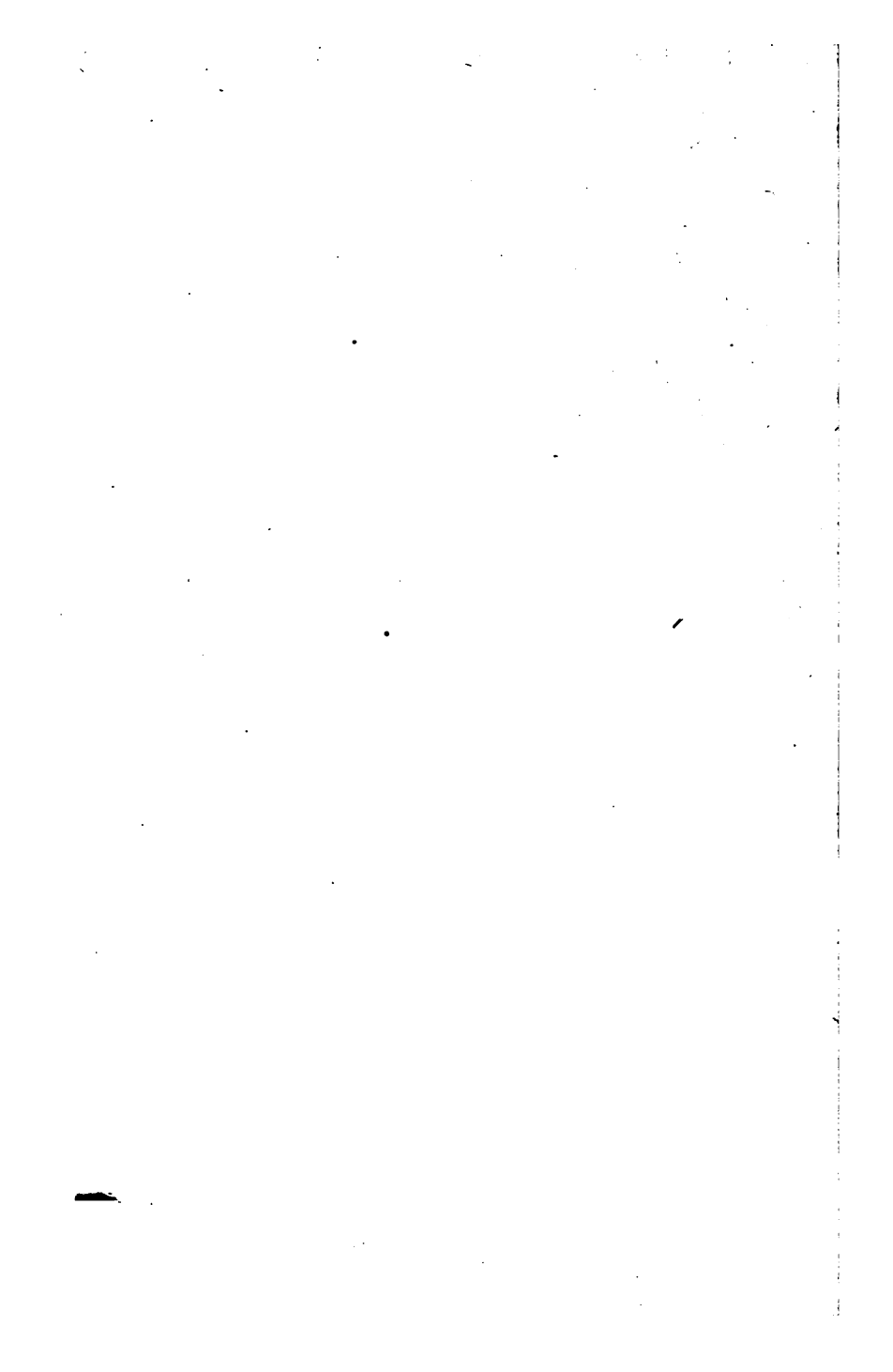
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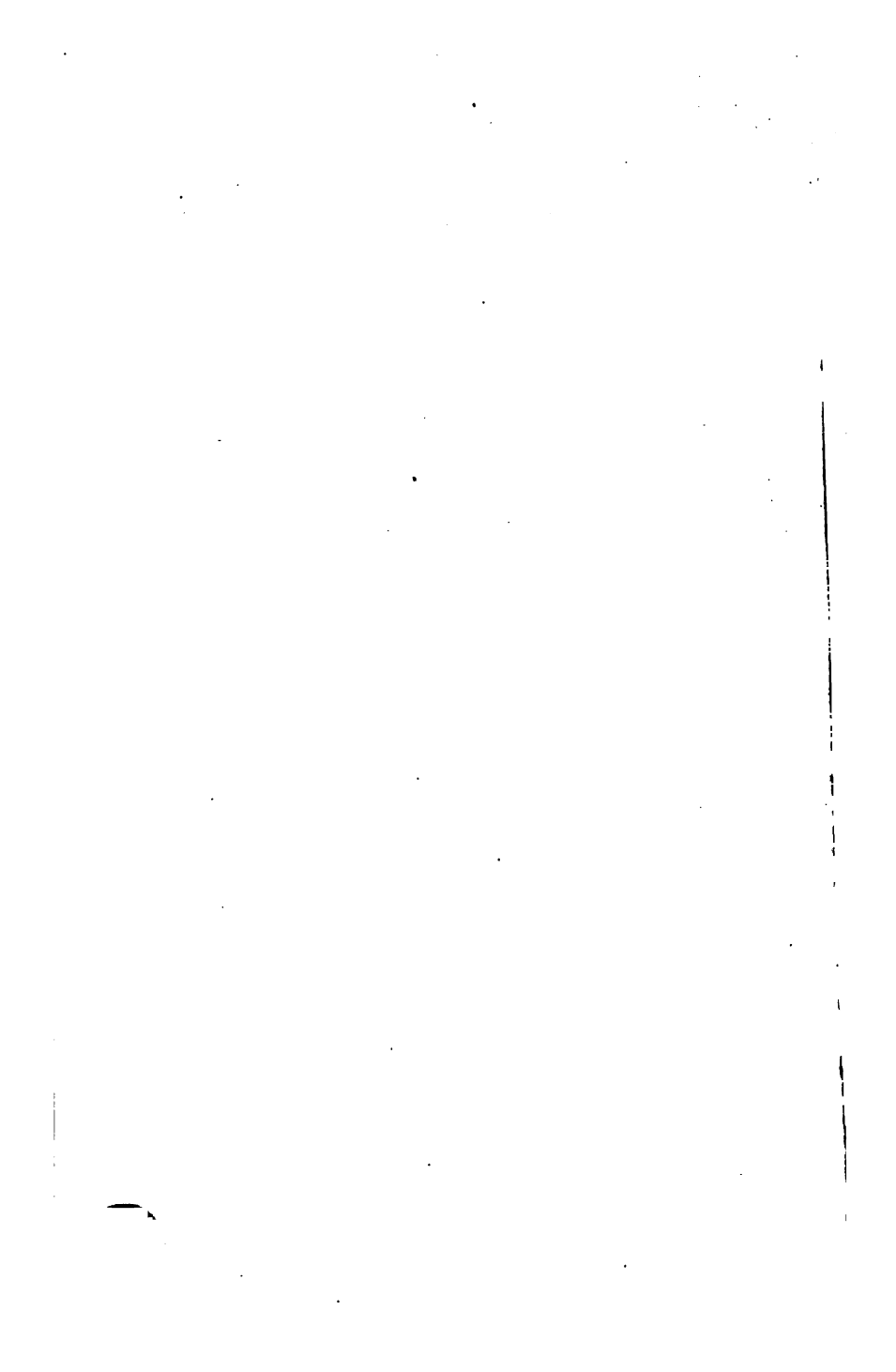


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SIXTY-FOURTH

ANNUAL MEETING

OF THE

62410

American Institute of Instruction

LECTURES, DISCUSSIONS, AND PROCEEDINGS

Bethlehem, N. H., July 9-12, 1894

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Published by order of the Board of Directors

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BOSTON

AMERICAN INSTITUTE OF INSTRUCTION

1894

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*Printed by the Republican Press Association,  
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AMERICAN INSTITUTE OF INSTRUCTION.

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SIXTY-FOURTH<sup>1</sup> ANNUAL MEETING,

JULY 9, 10, 11, AND 12, 1894.

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JOURNAL OF PROCEEDINGS.

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FIRST DAY—MONDAY, July 9.

EVENING SESSION.

The sixty-fourth annual meeting of the American Institute of Instruction opened in the Casino, Maplewood, N. H., Monday evening, July 9, 1894.

The president, George H. Martin, of Boston, Mass., called the Institute to order at 8:10 p. m.

Devotional exercises were conducted by Rev. Philo W. Sprague, of Charlestown, Mass.

The president then introduced the Temple Quartette of Boston,—E. M. Spears, 1st Tenor; E. F. Webber, 2d Tenor; Robert Bruce, 1st Bass; L. B. Merrill, 2d Bass,—who sang "Remember now thy Creator," by Rhodes.

President Martin extended a cordial welcome to the members of the Institute in behalf of the directors, and introduced Hon. Fred Gowing, Superintendent of

<sup>1</sup> There was no meeting in 1893, on account of the World's Columbian Exposition.

Public Instruction, who welcomed the Institute in the name of the State of New Hampshire.

WELCOME.

Superintendent Gowing spoke as follows :

On occasions like this, we miss the sound of a voice that is still, a voice that would thrill you with its eloquent welcome. That voice is still, but the spirit of New Hampshire hospitality and cordiality breathes a greeting as warm and true as ever.

This is a good state, not only to emigrate from, but to come to. It boasts little of its extent of territory, although a humorous rhymster occasionally brags of its "thousand miles of seacoast and mountains five miles high." It has been said, too, that if it were ironed out, this state would be equal in size to any.

The great Webster, speaking of the profile, "The Old Man of the Mountain," said that God put his sign here to show that New Hampshire makes *men*, and it is the preëminent virtue of this state that she has been the mother of men. Her children are her jewels. For this reason, schools and education have occupied a large place in the heart and thought of her people.

A somewhat conceited graduate of a western college, just receiving his diploma, asked his college president what he should do next. The reply came, "Go to some good New Hampshire academy and finish your education." Fact or fiction, this illustrates the esteem in which the higher education is held here.

With pride New Hampshire views her college, old Dartmouth, its history bright with glory, new Dartmouth, facing the rising sun, bright with every promise,—Durham college, hastening to its work,—her academies, her common schools. Because she has nurtured and maintained such institutions, the state gives glad greetings to this long-established American Institute of Instruction. Enjoy to the full this fair land, this delicate air. You will be the richer, and we none the poorer.

The governor of the state, unable to be present, instructs me to welcome you in behalf of the state, and I most gladly do so. In behalf of our schools and our educational interests, I bid you welcome. Your coming will be to us a stimulus and an inspiration. To you these scenes and this occasion should impart life and vigor,



and be pleasurable and profitable. Again I give you welcome,—a cordial New Hampshire welcome. Our latch-string is ever out to you.

Rev. A. J. Eastman, representing the town of Bethlehem, spoke as follows :

It is with pleasure that I extend to you the greetings of the "House of Bread" among these white hills. I welcome you to the enjoyment of her rugged scenery, pure and healthful atmosphere, and pleasant drives through shaded woodland. From these summits the eye can view Nature now robed in her greatest beauty. In the truest sense may Bethlehem and the regions on either side of her township limits be termed "The house of bread;" for a season spent here gives a delightful change to tired minds, and in that change a recuperation of powers for another year of hard work. Nor is summer the only attractive season of the year in northern New Hampshire. No work of art can equal the grandeur of these snow-capped hills, and of these valleys wrapped in winter's mantle. The atmosphere is dry and invigorating. While in Boston and all along the sea coast you are frozen with the thermometer above zero, we are very comfortable here with it at twenty below. I invite you to visit here in mid winter, to look at the grand old mountains clothed in white. I welcome you to our town all the more heartily, because of your beneficent work. Your work may not always be the most gratifying in immediate results. That cannot be expected. Yet, like the continued patter of rain upon the stony surface, the faithful drill of the teacher counts in the days to come. The prophet tells us that "It is precept upon precept, precept upon precept; line upon line, line upon line; here a little, there a little." Paul speaks of "pastors and teachers." Our work, though differing somewhat from yours, is similar in character. You cultivate the intellect, give polish to the whole man, and by a right training lead young minds into a sphere of great usefulness for this life. We ministers work with you, take the work where you leave it, and point out to men "the depth of the riches, both of the wisdom and knowledge of God."

Friends of education, I bid you a most hearty welcome to our town, and invite you to come again.

The President then called upon the Temple Quartette, who sang, "The Signal Resounds," by Buck, and on recall, "Ye Banks and Braes of Bonnie Doon."

The address of the evening was delivered by President William J. Tucker, of Dartmouth College, on "HASTE IN THE PROCESS OF EDUCATION."

[For all addresses and the lengthier speeches in debate, the reader is referred to pages of this volume following the Journal of Proceedings and its appendixes. The two parts of the volume are distinguished by difference in style of paging.]

After the President had announced that a meeting of the Directors would be held in front of the platform immediately after adjournment, the Temple Quartette sang "Autumn Sunset," by Göring.

#### DIRECTORS' MEETING.

At the meeting held directly after the adjournment of the Institute, the Directors voted that the annual assessment be one dollar for each member; also that the volume of this year's proceedings be sent to any member asking the treasurer therefor, and paying him ten cents for postage thereon.

#### SECOND DAY—TUESDAY, July 10.

##### MORNING SESSION.

The meeting of the Institute was called to order in Cruft Hall by President Martin at 9:25 a. m.

The devotional exercises were conducted by Rev. Dr. H. B. Frissell, of Hampton, Va.

The Temple Quartette were again called upon, and sang "Before the Sun," by Abt, and "Whenever I Gaze into Thine Eyes," by Schielman.

The President then appointed the following

*Committee on Nominations.*

A. G. Boyden, Bridgewater, Mass.  
Fred Gowing, Concord, N. H.  
Benjamin Baker, Newport, R. I.  
A. H. Campbell, Johnson, Vt.  
William F. Gordy, Hartford, Conn.  
W. W. Stetson, Auburn, Me.

The general subject of this session was "CHARACTER BUILDING."

The first paper was read by Walter S. Parker, Supervisor of Public Schools, Boston, on "CHARACTER BUILDING IN THE GRAMMAR SCHOOL."

The discussion was opened by William F. Gordy, Supervising Principal, Hartford, Conn.

The second paper was read by Charles Jacobus, late Principal of the High School, Springfield, Mass., on "CHARACTER BUILDING IN HIGH SCHOOLS."

The discussion was opened by Miss Carrie E. Small, Principal of Woodward Institute, Quincy, Mass.

Intermission of ten minutes.

The third paper was read by H. S. Cowell, Principal of Cushing Academy, Ashburnham, Mass., on "CHARACTER BUILDING IN ACADEMIES."

The discussion was opened by Rev. F. D. Blakeslee, D. D., Principal of East Greenwich Academy, R. I.

The Institute then adjourned until evening.

## SECOND DAY—TUESDAY, July 10.

## EVENING SESSION.

The Institute again met in the Casino at Maplewood.

President Martin called the meeting to order at 8 p. m., and again presented the Temple Quartette, who sang the "Carnival of Venice," by Genée, and on recall, "Ding-dong," by Nevin, and "Swanee River," arranged by W. A. Potter.

The President then introduced Rev. B. L. Whitman, President of Colby University, who spoke on "THE AMERICAN COLLEGE AS A MORAL FORCE."

The second speaker of the evening was William T. Sedgwick, Ph. D., Professor of Biology, in the Massachusetts Institute of Technology, who treated the above subject from the point of view of the higher scientific institutions.

The President introduced Miss Emma V. Foster, who sang "Night Time," by Van de Water, and on recall, "I'm Wearing Awa' to the Land of the Leal," by Foote.

The Institute then adjourned until Thursday morning.

## THIRD DAY—WEDNESDAY, July 11.

## MORNING SESSION.

The session was called to order in Cruft Hall by President Martin at 9:20 a. m.

Devotional exercises were conducted by Rev. B. L. Whitman, President of Colby University, and the Temple Quartette chanted the Lord's Prayer.

The quartette then sang "Hark, the Trumpet!" by Buck, and on recall, "I'm a Pilgrim," by Marston.

The President appointed the following committees :

*Committee on Resolutions.*

William T. Peck, Providence, R. I.  
F. W. Whitney, Dover, N. H.  
Alvin F. Pease, Northampton, Mass.  
A. M. Thomas, Holton, Me.  
C. L. Ames, Hartford, Conn.

*Temporary Finance Committee.*

Daniel B. Hagar, Salem, Mass.  
J. G. Edgerly, Fitchburg, Mass.  
Walter S. Parker, Boston, Mass.

The President then introduced Charles B. Scott, Director of Science, St. Paul, Minn., who read a paper on "NATURE STUDY IN ELEMENTARY SCHOOLS."

The discussion was opened by Mrs. Julia M. Dewey, Superintendent of Schools, North Adams, Mass.

A general discussion followed. A. H. Campbell, Ph. D., of Johnson, Vt., expressed the opinion that the laboratory method of studying animals tends to make children cruel. It leads to the robbing of birds' nests and kindred cruelties.

Professor Scott replied that no such result will follow work conducted in the right spirit.

Prof. A. G. Boyden, of Bridgewater, Mass., said that he rejoiced that science teaching had reached its present status in the public schools.

Mr. H. C. Hardon, of Boston, argued that insects and small animals ought not to be killed in such numbers as to furnish each pupil with a specimen.

President C. W. Eliot, of Harvard University, replied that we can as well afford to sacrifice some of the insects and smaller animals to stimulate mental growth as to sacrifice animals for food to stimulate physical growth.

The subject was further discussed by Mr. J. C. Greenough, of Westfield, Mass., and Mr. H. C. Sawin, of Newton, Mass.,

After a short intermission, William H. Burnham, Ph. D., Instructor in Pedagogy in Clark University, read a paper on "MOTOR ABILITY IN CHILDREN."

The discussion was opened by W. W. Stetson, Ph. D., Superintendent of Schools, of Auburn, Me.

Brief remarks were made by A. E. Winship, of Boston, and J. C. Greenough, of Westfield, Mass.

The president announced that the proceedings of the meetings and some of the papers in full would appear in the *Journal of Education*, and that the current number of the *White Mountain Echo* would contain an account of the meetings and a full list of the members of the Institute.

The Institute then adjourned until evening.

### THIRD DAY—WEDNESDAY, July 11.

#### EVENING SESSION.

The evening session was called to order by President Martin at the Casino, at 8 p. m. A large audience was in attendance, in spite of the severe storm that was raging.

The Temple Quartette sang "Sunday on the Ocean,"

by Heinze, and on recall, the "Phantom Band," by Thayer, and "Woodland Roses," by Mair.

The first speaker of the evening was Charles W. Eliot, LL. D., President of Harvard University, who read a paper on "THE REPORT OF THE COMMITTEE OF TEN."

In the discussion of this subject, papers were also presented by Hon. Frank A. Hill, Litt. D., Secretary of the Massachusetts Board of Education, and A. E. Winship, Editor of the *Journal of Education*.

The Institute then adjourned until Thursday morning.

#### FOURTH DAY—THURSDAY, July 12.

##### MORNING SESSION.

The Institute resumed its sessions at Cruft Hall. President Martin called to order at 9:10 a. m., and devotional exercises were conducted by Rev. W. C. Bartlett, Pastor of the Methodist Episcopal Church of Bethlehem.

Miss Emma V. Foster, of Boston, sang "In God's Acre," and "Good Bye, Sweet Day."

The first paper was read by Miss Margaret K. Smith, of the State Normal School, Oswego, N. Y., on "EVERY-DAY USES OF HERBARTIANISM."

This paper was discussed by John T. Prince, Ph. D., Agent of the Massachusetts Board of Education.

Miss Sarah L. Arnold, Supervisor of Primary Schools, Minneapolis, Minn., then addressed the Institute on "UNIFICATION IN PRIMARY SCHOOL WORK." This paper was received with great enthusiasm, and the

audience paid the speaker the unusual compliment of recalling her to the platform.

The paper was briefly discussed by Mr. Henry C. Hardon, of Boston, and Dr. Merrill E. Gates, of Amherst.

After a brief intermission, Mr. Henry T. Bailey, Agent of the Massachusetts Board of Education, addressed the Institute on the "USE AND ABUSE OF ILLUSTRATIVE DRAWING." This instructive address was fully illustrated by blackboard sketches.

#### BUSINESS MEETING.

Mr. M. Grant Daniell, of Boston, Chairman of the Committee on Membership, presented the report of that committee, which was accepted and adopted.

Mr. W. F. Gordy, of Hartford, presented the report of the Committee on Nominations, and stated that President Martin had positively declined to be a candidate for re-election. The Secretary was directed by unanimous vote of the Institute to cast one ballot bearing the names presented. The ballot was cast, and the President declared the officers nominated duly elected.

[The list of officers of the Institute, with the Constitution and a list of active members, will be found in the pages following this "Journal of Proceedings" and preceding the addresses.]

Mr. William T. Peck, of Providence, Chairman of the Committee on Resolutions, presented the following report, which was unanimously adopted :



## REPORT OF THE COMMITTEE ON RESOLUTIONS.

*Resolved*, That in the opinion of the teachers of this association it was with great wisdom that the various papers on character building were given the first place upon the programme of the Institute, and that we individually feel called upon to give greater attention to character building hereafter, and hope the years to come will bear witness in the entire educational field of an abundant harvest from the seed sown at this session of the Institute.

*Resolved*, That nature study should be recognized as an important branch of education, and an efficient means of training the perceptive powers of the child; that nature study should be so correlated with language, drawing, geography, and literature as to secure unity and promote educational progress; that the method of instruction should be such as will enable the pupil to gain knowledge of permanent value and lay the foundations for future scientific study.

*Resolved*, That we recognize the important value of the report of the Committee of Ten to the cause of education in this country; that we recommend to the makers of programmes of secondary schools to work along the lines of this report and especially in Latin-scientific and in English courses to arrange for sufficient periods of time for the various studies selected, so that the full educational advantages of those studies may be secured; and that we urge upon the colleges the importance of establishing requirements for admission from scientific and English courses thus improved, so that there may be a closer connection between the colleges and the high schools of our country.

*Resolved*, That the thanks of the American Institute of Instruction be and are hereby extended to the managers of the several railroads and to the proprietors of the hotels and boarding houses of Bethlehem for personal courtesies and reduction of rates; to the local committee for its assistance in making arrangements for this meeting; to the several speakers for their able and instructive addresses; to the Temple Quartette and Miss Emma V. Foster, of Boston, for their entertaining music; and to the president, the secretary, the treasurer, the assistant secretary, and the assistant treasurer and other executive officers for their efficient services rendered to this Institute.

Mr. M. Grant Daniell presented the following report on attendance, prepared by the treasurer :

Maine.....	30
New Hampshire.....	61
Vermont.....	21
Massachusetts .....	456
Rhode Island.....	56
Connecticut .....	73
Elsewhere.....	73
Total .....	770
Lynn, the banner city, 54.	

The Institute adjourned at 12.30 until evening.

#### FOURTH DAY—THURSDAY, July 12.

##### EVENING SESSION.

The Institute was called to order in the Casino by the president at 8 p. m., and the exercises were again opened by song by the Temple Quartette, assisted by Miss Emma V. Foster, the selections being "On the Water," by Abt, and "Sunset," by Van de Water.

The last address of the session was delivered by Rev. Geo. Williamson Smith, D. D., president of Trinity College, on "The French, the Dutch, and the Six Nations in American History."

President Martin presented for the last time the Temple Quartette, who sang "Abide with Me," by W. A. Porter.

The closing event of this highly successful meeting was the induction into office of the president-elect, Mr. W. W. Stetson. President Martin presented the gavel to his successor with the following remarks :

And now, as the time arrives for me to lay off the responsibilities of administration entrusted to me two years ago, I should be doing violence to my own feelings if I did not express in the warmest terms my appreciation of the generous way in which the members of the Institute have responded to all my appeals and seconded all my efforts. I know how strong was the attraction of the National meeting, and I appreciate the self-denial which many of you made in coming here. I know the attraction of the scenery and of social converse on these hotel piazzas, and I appreciate your loyalty and courtesy in so punctually and so continuously attending to the business of the association. I hope your self-denial and your constancy have not been wholly unrewarded.

To my associates on the executive committee I take this opportunity to express my grateful appreciation of their cordial coöperation. To the good judgment and the unwearied services of the secretary the success of this meeting has been largely due. If you have had any satisfaction in the meeting, I hope you will give by far the largest share of the credit to him.

And now it becomes my pleasant duty to put into your hands, Mr. President, this symbol of official authority, by which transfer you are formally inducted into your new office. I am glad that the choice of the Institute has fallen to Maine and to you. Your shoulders are broad and your hands strong, and the motto of your state *Dirigo*. I am sure that I make no mistake when I assure you that where Maine leads, Massachusetts and her sister states will gladly follow.

On accepting the trust, President Stetson replied:

If I felt the honor you have so graciously bestowed upon me less, it would be easier for me to voice my appreciation of a distinction that was as unexpected as it is distinguished.

No society with the laurels that the Institute has won through its retiring President, could hope to repeat its record in his successor. Nature made but one such President, and the mould was broken long before '49.

The grace with which you have presided, the wit and wisdom with which you have presented the speakers, give an added prestige to the honorable fame of the oldest educational association in the Union.

In accepting this gavel, I do it with the hope that I may have the same generous support that has been so cordially given you. With this, few could fail. Without it, a smaller number would succeed.

In squaring my shoulders to receive a mantle that you have worn with rare dignity I feel that I stand beneath a tent large enough to cover a great host.

Should the Pine Tree State be so fortunate as to be granted the privilege of furnishing a place for the next meeting of the Institute, we will promise and give you a genuine "Maineac's" greeting.

I join you in the hope that the years to come will find the Institute still occupying its commanding position of leader of educational thought in this country. The quality of the exercises of this session assures us that we need not display red lights in the rear of our procession, as there will be no one of those following near enough to see the signal.

Again thanking you for the great honor which your indulgence has bestowed upon me, I now declare this, the sixty-fourth session of the American Institute of Instruction adjourned *sine die*.

#### DIRECTORS' MEETING.

Immediately after the adjournment of the Institute, the customary meeting of the Board of Directors was held in the Casino. The following standing Committees were appointed :

##### *Finance.*

G. A. Walton, West Newton, Mass.  
T. B. Stockwell, Providence, R. I.  
George I. Aldrich, Newton, Mass.

##### *Membership.*

M. G. Daniell, Boston, Mass.  
C. L. Ames, Hartford, Conn.  
S. W. Landon, Burlington, Vt.  
With the President, Secretary, and Treasurer.

*Necrology.*

D. N. Camp, New Britain, Conn.

J. S. Barrell, Cambridge, Mass.

J. A. Page, Boston, Mass.

*Printing Volume.*

W. W. Stetson, Auburn, Maine.

Charles W. Parmenter, Cambridge, Mass.

James W. Webster, Malden, Mass.

*Committee of Arrangements for the Annual Meeting of 1895.*

W. W. Stetson, 295 Minot Ave., Auburn, Me.

Charles W. Parmenter, 19 Fayette St., Cambridge, Mass.

James W. Webster, 588 Main St., Malden, Mass.

Lewis H. Meader, 21 Andem St., Providence, R. I.

Leverett L. Camp, 1303 Chapel St., New Haven, Conn.

**CONSTITUTION**  
**OF THE**  
**AMERICAN INSTITUTE OF INSTRUCTION,**

Adopted August, 1870, as a substitute for the older one,  
and amended July, 1886, and July, 1891.

---

**PREAMBLE.**

We, whose names are hereunto subjoined, pledging our zealous efforts to promote the cause of popular education, agree to adopt the following Constitution :

**ARTICLE I.—NAME.**

The society shall be known by the title of the American Institute of Instruction.

**ARTICLE II.—MEMBERS.**

1. The members of this Institute shall be divided into three classes, styled active, associate, and honorary.

2. Any person interested in the cause of education and recommended by the Committee on Membership may become an active member by a major vote of the members present and voting at any regular meeting.

3. Only active members shall be empowered to vote and hold office.

4. Any active member, who shall for the period of one year neglect to pay the annual assessment, shall by such neglect forfeit his membership.

5. Any person of good moral character may become an associate member for the current year by paying the annual assessment.

6. Honorary members may be elected by the Institute on recommendation of two thirds of the Directors present at any stated meeting of the Board.

## ARTICLE III.—MEETINGS.

1. The Annual Meeting shall be held at such time and place as the Board of Directors shall appoint.
2. Special meetings may be called by the Directors.
3. Due notice of the meetings of the Institute shall be given in the public journals.

## ARTICLE IV.—OFFICERS.

1. The officers of the Institute shall be a President, Vice-Presidents, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, and twelve Counsellors, all of whom shall constitute a Board of Directors.
2. The officers shall be elected annually by ballot and shall continue in office till their successors shall be chosen.

## ARTICLE V.—DUTIES OF OFFICERS.

1. The Secretary shall give notice of all meetings of the Institute and of the Board of Directors and shall keep a record of their transactions.
2. The Treasurer shall collect and receive all moneys of the Institute and shall render an accurate statement of his receipts and payments annually, and whenever called upon by the Board of Directors, to whom he shall give such bonds for the faithful performance of his duty as they shall require. He shall make no payment, except by order of the Finance Committee of the Board.
3. The Board of Directors shall devise and carry into execution such measures as may promote the general interests of the Institute, shall have charge of the property of the Institute, shall be authorized to publish its proceedings and such papers relating to education as may seem to them desirable. They shall have power to fill all vacancies in their Board, from members of the Institute, and make By-Laws for its government. They shall have power to vote an annual assessment of one dollar upon the members, except honorary members, and to remit the payment thereof, when in their judgment it may seem wise to do so. They shall annually elect the following standing committees :
  - (1) A committee of three, who with the President, Secretary,

and Treasurer shall constitute the Committee on Membership, whose duty it shall be to report to the Institute, from time to time, the names of such persons as they may recommend for membership.

(2) A committee of three on Finance, whose duty it shall be to audit the accounts of the Treasurer and, under the control of the Board of Directors, to draw orders on the Treasurer for the payment of charges against the Institute.

(3) A committee of three on Necrology.

4. Stated meetings of the Board shall be held on the first Saturday in January and on the first day of the Annual Meeting of the Institute.

#### ARTICLE VI.—BY-LAWS AND AMENDMENTS.

1. By-Laws not repugnant to this Constitution may be adopted at any regular meeting.

2. This Constitution may be altered or amended by a vote of two thirds of the members present at the Annual Meeting, provided two thirds of the Directors present at a stated meeting shall agree to recommend the proposed alteration or amendment.

#### BY-LAWS.

1. At all meetings of the Board of Directors, seven members shall be necessary to constitute a quorum to do business.

2. It shall be the duty of the Secretary, on application of any two Directors, to call special meetings of the Board at such time and place as the President may appoint.

3. Before each Annual Meeting, the Treasurer shall have printed certificates of membership, numbered consecutively from one upward. These certificates shall be attached to stubs having the corresponding numbers printed thereon. The book of stubs left after the certificates of membership are detached therefrom shall form a part of the Treasurer's account, to be delivered to the Finance Committee, for the purpose of auditing the accounts of the Institute.



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OF THE  
AMERICAN INSTITUTE OF INSTRUCTION,  
1894-'95.

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## ADDRESSES.





## I.

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### **HASTE IN THE PROCESS OF EDUCATION.**

BY REV. WILLIAM JEWETT TUCKER, D. D., PRESIDENT OF  
DARTMOUTH COLLEGE.

In discussing the question upon which I have been asked to speak, I wish to emphasize at the outset the difference between economy of time, and haste in the process of education. The educational movement, in which we are now especially concerned, is set toward economy in the use of time. Many of the old methods of teaching were dilatory and wasteful to the last degree. They were repetitions; they were, to some extent, indiscriminating in subject matter; they did not secure perfect adaptation of material to the mind of the pupil: and they failed to develop the kind of progress which lies in a true continuity of studies. I believe that no effort of more significance has been made in the interest of sound education than that embodied in the Report of the Committee of Ten, the great motive of which is economy.

Now in clear distinction from this movement toward economy, there is, I think, an unmistakable tendency toward haste in the process of education, a tendency which is really contradictory and antagonistic to a true economy. I will refer very briefly to some present signs of this tendency, and then take up some of the educational principles upon which, as it seems to me,

insistence must be placed if we would secure the best results of our educational system.

Such signs of haste as these are apparent. The attempt to abridge the period of education, the endeavor, that is, to make instruction take the place and answer the purpose of education—of which I shall speak again. Then the narrowing of the range of study in preparation for professional life. In a recent circular issued from one of the professions the statement is made that fewer educated men, educated according to the standard of the colleges, are now entering the profession than a generation ago. Candidates are taken from the high schools, in the expectation that they will spend the value of a college course in special graduate study. The few do this; the many do not attempt it. It is not even in their plan.

- And then the habit of easy and hasty generalization which follows the insufficient use of the laboratory system. The system itself ensures the most conclusive results. If properly used it forbids haste and uncertainty. But many are not using it under the necessary restrictions. They reach conclusions before they reach facts. And the habit thus formed vitiates their reasoning on matters of more general concern.

And finally, the introduction of a certain calculating or commercial spirit into the more professional part of the higher education. I speak of this matter with hesitancy, and I bring no sweeping charges, but I cannot refrain from calling your attention to the fact that out of the large number who are pursuing graduate studies in the universities, at home or abroad, with

a view to teaching, comparatively few are qualified to become successful teachers. The fault is not in the general system, nor in the instruction in special departments. I find one explanation—it may cover only a certain type or class—in what I have termed the calculating spirit in which the work has been undertaken. It is quite possible for a quick and enterprising student to secure a fellowship, or a succession of fellowships, in a university, through which he may reach a given degree. He counts upon the degree to give him professional standing, and, what is more, position. If he fails to secure or to maintain his position, the reason is usually not in the lack of educational facility, but in the lack of educational character. Of course a degree cannot guarantee one's personality. But the process through which one reaches the teacher's degree ought to ensure stability of mind, maturity of judgment, breadth of view, certainty in mental action—qualities which go very far toward the make up of a successful teacher. I believe that there is no profession which can so ill afford haste in preparation as the teaching profession, certainly when it essays the higher education.

These illustrations of the tendency to haste in the process of education are quite independent of those abrupt breaks in individual training through impatience to enter upon business. Doubtless this spirit of impatience, reacts, to a degree, upon the general process, but we cannot now take account of it. Nor can we take account of those cases of arrested education when poverty or some equally strenuous necessity interposes to change personal ambitions and desires.

Here is the most pathetic chapter in the whole course of education ; but it is personal and must be considered in relation to our social and economic rather than to our educational conditions.

How shall we meet the tendencies to haste in the process of education ? I believe that the only true and sufficient method lies in the insistence upon those principles which ensure steady and well ordered progress, and which cause education to serve its high ends.

The first principle upon which I would insist is that in education, in distinction from simple instruction, the element of time is of supreme value. Let me recall the distinction to which I now refer, as brought out in a recent word from Professor Jebb. "It is no new thing," he says, "the question how far and how best we can combine education, that is the bringing out of the faculties, with instruction, that is the imparting of valuable knowledge. Modern life, so complex, so restless, and so competitive, naturally tends to insist first upon instruction : but as no progressing science can enable men to think faster, a sound economy of educational time depends on the same principles as ever." This is the true word. All educational progress depends upon the rate of mental movement. Unappropriated knowledge is wasted knowledge. Education must keep pace with instruction. Without doubt much has been done by good methods to accelerate the rate of mental movement. Pupils in some schools do think faster than those in other schools, just as men in some communities think faster than those in other communities.

But there are two periods in education, when, as it seems to me, the element of time is of special value, when the process cannot be forced. The first period covers a considerable part of the time of the elementary schools. It is the time of mental awakening. Education really begins with the awakening of the mind, no matter what may have gone before. There is a good deal of early routine work which has a much larger moral than intellectual value. The discipline which restrains and represses is positive from the moral point of view; from the intellectual point of view it is negative. I suspect that a great many children are not really awakened until they are discovered to themselves and to their teachers by the subject which interests and quickens them. Each child is born with his own angle of vision, from which he is to see the outer world. Failing to find that, the world is not open to him. We cannot hurry the young mind in its first ventures and trials upon this new and strange world of facts and ideas. We cannot hurry the teacher who has to do with this period of development. Insight, invention, patience, are the great qualities of the teacher in the elementary steps, and these qualities cannot work in haste. The tension must be firm—a slack mind never sees anything—but it must not be strained.

I would characterize the second period when the element of time is of the most value as the liberalizing period. It follows the strong and comparatively rapid discipline of the secondary schools. It is the time when the mind craves, and cannot safely be denied, a considerable amount of freedom. It is the period of

conscious mental power, or rather the beginning of this period. I do not care to locate it exactly in time and place. Practically, it is between the ages of seventeen and twenty-one, later rather than earlier, and coincides with a part at least of the college discipline. Of course it is not confined to a college curriculum, provided room be found for it in any other curriculum; but it must precede the period of exact and intense specialization. It is, as I have said, the time of intellectual freedom. It is the time of personal choices. It is the elective period in study. It is the time of more extended and serious thought, of questioning, not infrequently of doubt. It is the time when one learns the art of forming an opinion, the business of an educated man, in distinction from the untrained mental action of reflecting public sentiment. The opinions formed may be crude, but the art grows more perfect. It is the time when questions of duty get a rehearing in the light of the larger knowledge, and when ambitions are challenged by the wider opportunity. It is the time when the range of thought increases and widens, when new departments come in natural succession into the horizon. It is the time when one begins to think and feel and act under the sense of his growing manhood, before he straightens himself to the business of his life. Meanwhile there is no waste of time. Discipline goes on. Work is as earnest as it has been, or will be. This period of freedom has its own natural gains, but its chief gain is mental progress, the expansion of the intellect, the enlargement of mental character. If time allowed, I should like to speak of the danger of eliminating or

abridging this period of intellectual freedom in the ordinary course of education. When freedom comes late, when a man begins for the first time to be conscious of freedom after his education is over, it usually comes by way of reaction, and not infrequently by way of revolution. It comes too often at the expense of consistency, with the loss of moral momentum, at the cost of religious faith. The place of safety, as well as the place of power for intellectual freedom, is within, not beyond, the process of education. And somehow we must make room for it. We must allow for it in a certain repose of mind, rather than stimulate the mind by those incentives which result in haste of mental operation.

Let me advance to another principle upon which I believe we must insist if we would guard against haste in the process of education ; namely, that education in so far as it represents instruction, information, knowledge or learning, must be proportionate to the age. An educated mind, that is a disciplined and liberalized mind, is a constant quantity, but the contents of such a mind will vary from age to age. The learned man of one age is never the unlearned, unlettered, ignorant man in any age, but his learning may be quite insufficient and out of place in any other than his own age. Each age drops something which was deemed essential to that which went before. But it may take on more than it drops. And if that be the fact, then room must be made for the excess of the new above the old. This is exactly what has befallen our own time, so varied in its educational resources. I apprehend that no one would take so extreme a

position as to say that we can throw off enough of the old culture to make a place for the new, without any additional time. Just where a modern would draw the line between the necessary and the unimportant in the classical training may be a matter of dispute. By general consent something goes out, or is relegated to the line of special study. There has been preserved on the files of Dartmouth college the original "agreement" or contract between the first president, Eleazar Wheelock, something over a century ago, acting for the trustees, and Mr. John Smith, one of the early tutors who was promoted to the professorship of languages in the college. The "agreement" begins as follows: "Mr. Smith agrees to settle as Professor of English, Latin, Greek, Hebrew, Chaldee, etc., etc., in Dartmouth college, to teach which, and as many of them and *other* such languages as he shall understand, or as the trustees shall judge necessary and practicable for one man, and also to read lectures on these as often as the President and tutors with himself shall judge profitable to the College."

It is hardly necessary to say that two of the languages specified, to say nothing of the "etc., etc., or other languages" which were to be had on demand, no longer appear in the required curriculum of the college. It is still less necessary to add that what does appear in these places occupies far more than their room. It must always be so in so far as there is any educational progress in subject matter. Save as we will by economy in methods of teaching, and in the true proportion of studies, we take on more than we can afford to drop. But what shall we say in such



an age as our own, when the subject matter of education has so mightily increased. Is it possible to think of saving enough time by any economy of method, or by any fair abandonment of the old, to make a place for the new? Some are ready, I grant, to make a break between the old and the new, and to recognize two kinds of education so far as subject matter is concerned. Does this concession really settle the question? Is there any such break between the old and the new as to allow so violent a treatment? Put what stamp we will upon a man, give him what degree we will, is he really an educated man who knows the old and nothing of the new, or the new and nothing of the old? To be explicit, is a man educated who knows the classics and is ignorant of the working of the principle of evolution? Is a man any better educated who knows the natural and physical sciences and knows nothing of the historic world of humanity? Every one must agree that something must be given up as we advance. What I think we cannot agree to is that we must give up the connection between the old and the new. To go again into specifications—personally I dislike the abandonment of Greek as a part of a liberal training, but I would contend absolutely for Latin, not as the better language, but as the basis of modern culture, without which the modern is simply new and isolated. We cannot interpret our present civilization if we ignore the immediate and direct effect of the Roman civilization. I grant the truth as a geographical definition of Mommsen's date of modern civilization. "Modern civilization," he says, "dates from the transfer of power from the Mediterra-

nean to the Atlantic." But you will notice that this definition refers to the *transfer* of power, not the creation of power. It was the new location of existing forces, in the heart of a new race whose look was westward, which opened the gates of the modern world. But you might as well cut off the old world from the new as to break the connection utterly between the old civilization and culture and the new. And the whole bearing of what I am now saying is this, that we must not count the educational time which we save by better methods as saved to the *man* for more business or professional life; but saved to the *student* for acquaintance with the larger learning now accessible to him, and imperative in its claims upon him. I deprecate the attempt to make any student stand relatively to our age less a student, less an educated man in the final result, than he would have been relatively to a preceding age when there was less knowledge to be gained, or a narrow discipline to be observed.

A third principle, on which I am sure that we shall all agree, is, that economy in the time of the pupil can be gained only by better methods of teaching and by better training of teachers. The most discouraging fact in the present educational situation is the number of those in attendance in our schools and colleges in excess of those who are taught. I take this fact in reference to our schools, especially our public schools, from report. I take the fact in reference to our colleges from personal knowledge. Of course we will allow that a part of this result is due to the incompetency in some form of the teaching force—probably

to a lack of vitality in the teacher. You may remember that Mr. Beecher used to say that when he saw a man asleep in the congregation he knew that it was time to wake himself up. We will not assume that a larger per cent. of the teaching profession is awake than of any other profession, though I think it will be allowed that the risks of slumber are somewhat more hazardous.

But any analysis of the situation discloses a radical difficulty at each of three points: First, the utter insufficiency in the number of teachers, and even of general school accommodation in many sections of our cities. It will not answer to lay this difficulty entirely at the door of partisan politics in our cities, but this explains the fact in part. It may be that in some cases there has been extravagance in the administration of the school appropriations. It may be that too many costly experiments have been made in some directions. But whatever the cause may be, I believe that we must insist first, last, and always upon a proper supply of teachers. Nothing can take the place, or serve in any way as an equivalent for personal force rightly distributed.

Secondly, the immaturity of a considerable part of the teaching force in our higher institutions. The proportion of the number of students to teachers in our colleges is constantly decreasing, but the decrease is not really so great as it would appear to be. The rate is brought down by the large number of teachers in the lower grades—assistants of various sorts in all the departments. It is still an open question whether it is better to subdivide under inferior teachers, or to

combine under superior teachers. At present we subdivide by necessity in those departments which require laboratory work, but we do it often at the expense of proper direction and criticism. On the whole, I think that we are on the right plan. We cannot flatter ourselves, however, that we have ensured good teaching when we apportion a small number of students to the average assistant.

And third, the want of proper facilities for present methods of teaching in some of the older preparatory schools. The high schools are much better equipped for teaching the sciences, and even for teaching the classics through reference libraries, than many of the old academies. The serious lack in some of the old-time academies is in the teaching of the modern languages and in laboratory work. It is pleasant, however, to notice a marked revival of the academies in New England. Some of them have received large endowments within the past two or three years; others are showing great local energy in adapting themselves to the new situation. I consider the difficulty at this point less serious, because less permanent, than at the other points which I have mentioned.

A fourth difficulty, and by far the greatest, is the poverty of the rural towns in many parts of the country, which necessitates poor teaching and poor schools. I confess that I do not see the sufficient remedy for this difficulty. "The destruction of the poor is their poverty." This is far more true of the country poor than of the city poor, for numbers come to the relief of the poor of the city. The sparseness of the rural population greatly increases the expense of the schools in

all incidental ways. Something has been done; more can be done by careful organization, and especially by wise and effective superintendence.

The principle, however, underlying all these remedies is that economy of time must come altogether through more and better teaching, except through the right order and distribution of studies. But this latter principle would lead me to anticipate the discussion of the report of the Committee of Ten.

I advance to one other principle, which, though of a more general nature than those upon which we have been dwelling, has, I think, a constant significance. In estimating the time requisite for an education, viewed in any complete sense, regard must be had to the responsibilities of the educated man to the republic. It by no means follows that knowledge will ensure patriotism. Knowledge, like riches, may make selfishness more conspicuous. But if a man is well disposed toward his fellow men and toward his country, the ability to help in ways of direction and leadership is beyond price.

In a recent speech at the dedication of an academy hall, Mr. Charles Dudley Warner said that on the whole he thought the universities were a greater safeguard to the liberties of the country than the common school system. The remark has certainly this element of truth in it, that the common school system is chiefly protective in its results. It prevents the masses from being imposed upon. Ignorance always carries the burdens of society. It carries its unnecessary burdens. A traveller in the north of England noticed, as he came out of his inn one morning, an

omnibus standing before the door, advertised to run several miles into the country. What arrested his attention was a notice to the effect—first class, so much; second class, so much; third class, so much. But there was nothing to indicate any difference in accommodation. Out of mere curiosity, he took a seat, paid his fare, and awaited the result. All went on as at the start, till they came to a long stretch of rocky, muddy road. Then the driver stopped and called out, "First class fares stay in their seats; second class get out and walk; third class get out and push." So long as there is any class in ignorance the order will certainly come, "get out and push." Education says, "mend the roads." So much, at least, we can rely on the common school system to accomplish. But it is not apt to reach to leadership. Leadership goes for the most part with those who have the data for intelligent action. I have referred to the ability to form an opinion as the mark of a thoroughly educated man. Very few people have opinions, in distinction from sentiments, or prejudices, or convictions. When matters are simple, they know what is right and wrong, and can act with perfect clearness and decision. But when matters are complicated, when questions arise such as are now vexing the country in its economic conditions—I do not refer to rebellion—the real difficulty is to know what is right; and that is a matter of intelligence and not altogether of conscience. Contrast the simplicity of the issues which led up to the Civil War as they centred in the controversy about slavery with the intricacy of the problems in which the financial and economic interests of the country are

now involved, and you see at once that there is need of a considerable body of citizens capable of thinking and acting intelligently. We may well thank God for men of prompt and decisive judgment at the critical hour, but when the critical hour is over, then we may pray for more and more men who can think, and reason, and direct in such ways as to avert the otherwise inevitable conflict of interests and classes. A place must be found in the process of education for a larger attention to the responsibilities of citizenship. And for this result, we want something more than mere specialists. I am well aware of the common saying, that unless a man knows everything in a given political or economical situation, he knows nothing. I do not believe it. There is room for sound judgment this side omniscience. The mind that is trained to apprehend principles, to interpret facts, to expose fallacies, is in a reasonable way to act intelligently upon public questions. And in the time which we allow for a complete education we must make account for this near and common factor which is claiming entrance into our educational system. The dominant spirit in education for the past decade has been the commercial spirit—not necessarily in its grosser forms—steadily and persistently at work. It has been the spirit of the art of getting on. This is by no means an unworthy incentive. The man who knows how to get on discharges his first duty towards society—that is to take care of himself and then of his family. But somebody must take thought for the body politic which is more than the sum of the individual units of which it is composed, even if all are

getting on. And if our educational processes are not widened in spirit, in aim, and in subject matter, to include that common element which in times of reflection we call the nation, but which in times of passionate sentiment we call our country, we shall miss the great duty and lose the high result of our best thinking.

There is one broad fact, let me say in conclusion, which makes the appeal for time for education as practicable as it is urgent. That fact is the extension of the working period of life. Men may not live longer, they work longer than formerly. There are two reasons for this. First, medical science has directed its attention to the invigoration of age. It is no longer engaged in the vain search for the fountain of youth. It recognizes the inexorable. It accepts the impossible, and then proceeds to fill up the possible. It strengthens the years which rightly belong to a man, giving as a result the magnificent spectacle, seen again and again in our generation, of men of four score bearing on their shoulders the weight of empire.

And the second reason, hardly less effective, is that change in public sentiment which allows men to work as long as they are capable of the best results. The young man of capacity will always come to the front, but society is becoming so highly organized in all its departments in the professions, in business, in government, that it requires as a rule a longer apprenticeship to enter upon public and responsible life. A man is younger to-day for public uses at forty than he was a generation ago at thirty. And as we push the line of entrance along, we push the line of exit with it. We



have learned, that is, to avoid the recklessness and extravagance of the last generation in flinging away so much valuable life before its value had been utilized to the full. Now we capitalize the whole life of man, provided he has the resources to last.

We have the right, therefore, to claim the full time for education which we allowed when methods were slower and less productive. Every hour that we save by economy in method we have a right to fill with the larger knowledge. Every year within the rightful period of education, which is put to its legitimate use, reappears in the years of age and multiplies into personal power.

## II.

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### CHARACTER BUILDING IN GRAMMAR SCHOOLS.

BY WALTER S. PARKER, SUPERVISOR OF SCHOOLS, BOSTON.

Dr. Samuel Johnson once said: "No man of sense could meet Mr. Burke by accident under a gate-way to avoid a shower without being convinced that he was the first man in England."

We are all familiar with the saying that those who listened to Lord Chatham felt that there was something finer in the man than anything which he said. Archbishop Farrar said: "In the *personality* of Tolstoi there was something higher, purer, and more ennobling than anything in his books."

Emerson said: "We cannot find the smallest part of the personal weight of Washington in the narrative of his exploits." The authority of the name of Schiller is too great for his books. This inequality of the reputation to the works or the anecdotes, is not accounted for by saying that the reverberation is longer than the thunderclap, but something resided in these men, which begat an expectation that outran all their performance. The largest part of their power was latent. This is that which we call character—a reserved force, which acts directly by presence and without means. "Character," says Emerson again, "is Nature in the highest

form. Truth is the summit of being. Justice is the application of it to affairs. All individual natures stand in a scale, according to the purity of this element in them. The will of the pure runs down from them into other natures as water runs down from a higher into a lower vessel. This natural force is no more to be withstood than any other natural force. We can drive a stone upwards for a moment into the air, but it is yet true that all stones will forever fall, and whatever instances can be quoted of unpunished theft, or of a lie which some one credited, justice must prevail, and it is the privilege of truth to make itself believed. Character is this moral order seen through the medium of an individual nature." This somewhat long quotation from Emerson is given to make forcible the fact that in dealing with the subject under consideration, we are dealing with the spiritual, the hidden, the unseen, and yet the real, the important, the vital. It cannot be seen, but felt; we cannot measure its effects by rule, but we all feel its mighty influence. "It acts by presence and without means."

Mr. Currie, in the first statement of his work on Education, says: "Education comprises all the influences which go to form character."

Whether we take this broad view, or confine our thoughts to more direct means of moral training, I think we must admit that influences are constantly going on to affect character, and, like gravitation, are always at work.

The two agencies at work at this great task are the teacher and the conditions surrounding the pupil, or his environment.

As the fountain cannot play higher than the lake from which the source of supply comes, so the moral training of the teaching cannot be better or higher than the personal morality of the instructor. It has been well said: "We are taught, and we teach, by something about us that never goes into language at all." "It is oftentimes the very highest kind of teaching, most charged with moral power, most apt to go down among the secret springs of conduct, most effectual for vital issues, for the very reason that it is spiritual in its character, noiseless in its pretension, and constant in its operation."

When I accepted the invitation to speak upon this subject I did so the more readily, because I had great faith in it. Moreover, I firmly believe that it is the one great need to make education of any value, either to the individual or to society. It is the one thing to keep constantly in mind while teaching the young. It is the governor or talisman that controls all actions.

Notwithstanding my faith in the work of character building, still, when I endeavor to put my thoughts on paper, to convey them to others, I feel how inadequate is the power of language to express our inmost thought on matters that have a spiritual element in them. Can a man's influence be described, defined, and measured? How much less can we make definite the means used, either consciously or unconsciously, to make that influence felt. Can we describe the magnetic power which one man has over others? Yet we have positive, experimental knowledge that it exists, for we have felt its power, and its influence is not easily effaced.

Even a Sir Joshua Reynolds cannot impart to the canvas the *glow of life* that impresses us with the warmth and sympathy of its owner. The eye of the teacher, with the aid of countenance and posture of body, speaks often stronger than words could do. Can language convey to our minds the thoughts suggested by the kindling of the eye, the love and sympathy expressed by features? By means of such a nature is the important work of character building going on in many of the schools to-day.

We all admit, I believe, as the first essential, that the builder ought to be the highest type of a man. That the product produced, if I may so use these terms, will not be better than the material out of which it is made.

The virtues cannot be cultivated by the vicious, unselfishness cannot be taught by the selfish, selfishness to be overcome must be felt, the pupil must see generosity exemplified in the teacher.

This would not be true if moral instruction could be given as something apart from and outside of the instructor. It is said that we may merely *instruct* in certain intellectual knowledge. But in morals I maintain that with the young, we are not instructors merely, but always teachers. The young pupil does not separate the ideas conveyed from the person conveying them. The moral purposes formed and the lessons learned will be valued and appropriated by the learner only so far as they are daily exemplified in the life and conduct of the teacher.

It will be well to remember that the pupil's estimate of teacher is formed from the worst they know about

him. The scriptural injunction, "Go thou and show thyself a man," would be fitting for the teacher if he expects to influence character in the young.

I believe the superintendent was right who said that in the selection of teachers, he would first require a high moral character, second, fine manners, third, good scholarship, and last, professional training. That superintendent, it seems to me, had high ideals of true teaching in its broadest and highest aspect. That which affects the life most, he puts first. High moral character carries with it the second element mentioned, fine manners, which must emanate from a generous heart. Sometimes we see the bright and accomplished scholar at the teacher's desk with but little or no influence in moulding the destinies of his pupils, because of the lack of a strong, manly character with love in his soul.

He possesses knowledge, but lacks wisdom. He has cultivated his head, but neglected his heart. He has cultivated the powers of the mind, and neglected to nourish the tender sensibilities of the soul. His interest in the boys and girls never penetrates beyond the mental, the physical; it never reaches out in human sympathy to the centers of human action. When the teacher's interest is only intellectual, the result on the pupil's part will only be intellectual. They get their lessons perchance, but the moral influence is not marked. His influence is minus or passive, when it should be plus, positive, and enduring. His own heart lacks culture, and he is unable to cultivate the nobler emotions of his pupils.

Again, I have seen at the teacher's desk one of

those men, endowed by nature with fine physical powers, like an Apollo, who seemed to the superficial observer to possess all the elements to command respect and insure obedience from the young. Yet in actual practice he was a pigmy, without ability to control or power to gain even the respectable appearance of good order and attention. Hence it can be seen that power comes not primarily or ultimately from the physical or intellectual, but from the moral, or in other words, it is character that insures respect and attention.

To insure the most effective work in character building there must exist love and sympathy for the pupil. It must be real, genuine, and I want to say natural; without this there seems to be something lacking, with it abounding in the heart and soul and guided by wisdom and a high sense of justice the influence of the teacher in moulding the life and character is almost unlimited.

Calderwood says: "If a teacher has no sympathy with the shifting interests, the flowing mirthfulness, the strong, though idle, fears, the passing anxieties, the perplexing puzzles, the sore disappointments of childhood,—if to him these are all alike childish and beneath consideration—he is out of sympathy with the real life-work of the teacher of youth.

"Better that such an one betake himself to what he regards as more manly work, and leave to others the delicate and difficult task of bringing a cultured manhood and a refined womanhood out of feeble, undeveloped childhood."

It has seemed to me that it takes more skill and

power, tact and good judgment to *teach* the young than is required to *instruct* the old. More of these higher, rarer gifts, that inspire, ennoble, and enrich. The listless are to be quickened, the restless are to be provided with means to engage their attention, the timid are to be encouraged, the wayward to be checked, the weak protected, and the strong guided aright: all to be done apportionately, as individual needs require. To be done aright needs a man or woman divinely appointed.

To illustrate, I have in mind a teacher who had in her class a very troublesome girl, who had been a torment to all her teachers, noted throughout the building as a bad girl, unreliable in every particular. After she reached the teacher, Miss A., we will call her, and had made life a burden to her for nearly six months, she was taken suddenly sick and was absent from school for several weeks, much to the relief of teacher and pupils. When she returned, looking pale and worn, the teacher's heart was touched. She called her to her desk and said, "Mary, *we missed you.*" It was n't *what* she said, for it could have been taken in two ways, but the *way* she said it, full of tenderness and love. It struck a chord of sympathy in the girl's heart, which resulted in a complete reformation in school life, and in after years she became a very fine womanly character. Returning to the school, many years after, she said to the teacher: "That little sentence with the great meaning in it, 'We missed you, Mary,' won my heart, and I determined to deserve my teacher's love and respect."

After love and sympathy to influence character I



would place a high sense of justice in all our dealing with the children. It is often times surprising what a keen sense of equity and right the young mind possesses. The teacher's position gives him an opportunity to play the tyrant if he is so disposed.

If we would influence children we must at least prove to them by our actions that we are *striving*, at least, to give them justice. "Put yourself in his place," would be a good motto to remember and apply in our dealings with those under us.

*Is not great care necessary to deal justly?* How many boys are there who carry throughout their lives a grievous burden on account of some unjust treatment received at the hands of a hasty teacher!

As the elementary schools are often called the "people's schools," because attended by over ninety per cent. of all the school children of the country, at the most impressionable age of childhood, when the mind is like wax to receive and like marble to retain, it behooves us to realize that we need in those schools the highest type of teaching power,—men and women, imbued with high purposes and lofty ideas of what the teaching should be, always remembering that it is immortal mind or heart that they have in tutelage.

The elementary schools are important because they are the foundation on which the superstructure is built. The boy often times secures there his lofty ideal, his impulse, that he has a mission in life; his desire for an education often begins there. It is there that he passes through what I have before called, and for want of a better name I will call again, the gorilla age; then could it be written in very truth over the door of his

school, "Trouble begins at 9 o'clock." He is neither boy nor man, has the weakness of both, fears neither God nor man, and sometimes—must I say it—seems to have a high regard for the devil, judging by the way he tries to imitate him in his actions.

This calls to my mind how little many highly educated men regard the high calling of teaching, as though it were simply imparting knowledge or hearing lessons already learned.

In the elementary schools, to affect character we must individualize ; to do this successfully, the number for each teacher must be reduced.

In closing, I would call your attention to one thing more. In one sense it is additional to what has already been said ; in another sense it includes everything that *has been* said or can be said on this most vital subject of character building in the schools. It is *Spirit of the School*. It is the spiritual atmosphere, surrounding, pervading, and permeating everybody and everything that belongs to it ; it is not seen, but felt ; it is hard to describe ; it is nevertheless present.

*Spirit !*

What was it in Agassiz that made him the power that he was ? Not his transcendent learning or his great genius, but his simple teachable spirit.

What was it that endeared old Father Abraham to sixty millions of people ? His kindly, sympathetic, and generous spirit.

Why was it that Grant seemed greater on the lonely mountain, patiently fighting his last fight, than when he was the hero of the great civil war ? It was the spirit of the man. As Mark Twain said of his book, "Per-

haps the grammar may have been faulty, but the spirit of the whole book was divine."

What is it that we admire in the Revolutionary fathers but the spirit they showed in contending for the right?

What was it that stirred the blood and inspired the action of the boys in blue in '61? It was the spirit of freedom.

What is it but the spirit of John Brown that goes marching on?

What is there of the teacher's work that is permanent and abiding, and will live forever? Nothing but the spirit of the man. "The letter killeth, but the spirit maketh alive."

We should endeavor, with the young, to build up character not by formal lessons on morals, but by being possessed of such a spirit that in every lesson taught the spiritual relation which every science has will be felt.

"Heaven doth with *us* as *we* with torches do,  
Not light them for themselves; for if our virtues did not go  
forth of us, 'twere all alike  
As if we had them not."

## DISCUSSION.

The discussion of Mr. Parker's paper was opened by W. F. GORDY, supervising principal, Hartford, Conn. He said:

Since education is a preparation for complete living, it involves the best possible training of the individual

for his legitimate place in the social world around him. It follows that the more complex the social life the more complex must be the demands made upon the school, and that this institution best fulfills its functions when it in a large measure epitomizes the society out of which it springs. As that society has gradually differentiated itself, it has demanded, for the expression of this differentiation, the introduction of new branches of study into the school. The multiplicity of studies has led to embarrassing difficulties which the leaders of thought in the educational world are trying to meet by eliminating non-essentials, and by co-ordinating the various branches taught. To effect all this, pedagogy and kindred sciences are now studied with a zeal and intelligence hitherto unequaled, so that out of perplexing difficulty may yet come simple unity. However this may be, of one triumphant achievement we are already certain. A new line of investigation, full of rich promise, has been taken up, and that line of investigation is child study.

Emphasis was formerly laid upon the facts acquired, and the examination craze intensified the tendency. It is now laid upon the child. The subjective side now comes into prominence. Not fact-getting but soul-growth is the chief aim. This changes the whole trend of education, and makes teaching scientific. According to this theory, the soul is nourished and sustained by feeding upon ideas. It assimilates thought as the body assimilates food. Education, then, is a thing of life, and thought is the motive power of this life.

But this emphasis upon individual development is

largely the result of the great advance made in the study of social problems. The growth of the individual is important mainly because of his relation to society. Not man as a unit but as a social factor is what most concerns the state. Some one has wisely said that God and one man would suffice for any religion except Christianity. But the highest morality, without which Christianity is impossible, pre-supposes the existence of other men.' These furnish the neighbor of Holy Writ. "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind" makes only one half of Christianity, "and thy neighbor as thyself" is the other half. The highest form of Christianity will be realized when these two great principles animate and permeate life. The best product of this enlightened age is the individual man or woman with a benevolent, altruistic spirit,—a spirit that recognizes at their true value the rights of others, and is willing to shoulder the obligations imposed by such recognition. To prepare the pupil for complete living, then, makes it of the first importance that the school should aid him sympathetically to interpret the meaning of his social relations, and with vigorous, manly courage to act toward others according to his enlightened mind and heart. The pre-eminent aim of education is, and must be, morality,—character—manhood and womanhood.

It is not extravagant to say the schools are doing more for this all-round training of the social man and woman than any other modern institution, and is therefore more closely in touch with modern life. More and more as the years come and go are dis-

cipline and instruction in the grammar school made to minister to character-building. In the hands of the artist-teacher discipline is made effective for self-control, good desires, and right action. No authority for its own sake does such a teacher exercise. Every step in discipline is taken with direct reference to its reaction upon the pupil or pupils. You and I know such teachers. Fortunate the children who come within the range of their life-giving power!

The best school is a miniature state—a little republic. In such a school the pupil is led to see that he is already in the service of his country—that in return for the opportunities he there enjoys he owes his best efforts to his country. In concrete lessons, daily learned, he sees how he can by his attitude aid in making his little state good or bad. He is in his place not more to help himself than to help others. His good influence over his associates is an important factor which the school cannot afford to lose. What he is and what he does, he is thus made to see, are a part of the common wealth, of which he is by no means an insignificant part. He learns that he has no right to be idle and shiftless. He comes to know that he can have no right to injure others by refusing to comply with the requirements looking toward the general good. Day by day he grows in self-control, self-respect, and respect for the rights and feelings of others. There can be in his mind no antagonism with his teacher, for their aims are one. That boy is already a good citizen, and he is proud of his citizenship. He is serving his country in just as real and noble a sense as did the

men who took up arms for the integrity of the flag in 1861.

This, as you all know, is no mere picture of the imagination, for schools similar to this can be found. Character-building is the central aim in such a school. A stubborn nature enters it. There is no attempt to break his will. It is guided in the right direction, gently but firmly corrected, and kindly led. A sullen, morose boy is enrolled in this school. The brow gradually ceases to contract and the countenance to be overcast with clouds. Sunshine enters the soul and illumines it with the light of love. Life—sweet, wholesome, refined—buds, blooms, and bears fruit. A truant joins the membership of this school. His past life is found out. What a history! What a home is his! His mother a disgrace to womanhood, his father a vagrant, useless to society—manhood wrecked—a man despised and almost forsaken. This poor boy knows little of beauty or kindness in life. But he soon learns. Sympathy, gentleness, patience, forbearance—these do their destined work. The divine flame that seemed almost smothered is rekindled. That soul is awakened from stolid indifference, and the boy who was in rapid and easy preparation for the criminal and dependent classes is gently removed and placed in the ranks of those who will do good service for their country. In the last ten years I have come in contact with boys of this class, and it has been one of life's compensations to see them grow into a consciousness of manly strength. You know as well as I the indications of such growth, and those of us who have seen it, can never forget it. Such are the effects

of real discipline. Let us briefly note the part instruction plays in character-building.

We used to hear of mental discipline *and* knowledge, as though they were distinct. We now speak of mental discipline *through* knowledge, and we can with Herbart go further and say that sympathy, benevolence, and character come from that "many-sided interest" bound up in the "circle of thought." I welcome the enrichment of the grammar-school curriculum by adding studies freighted with thought. The liberalizing influence of such studies is not likely to be overrated. The individual soul is thus freed from narrow, contracted surroundings and becomes a citizen of the world. He is no longer hampered in thought by experiences resulting from observation in his immediate neighborhood. He shares in the experiences of the race, and the wealth of the ages becomes his own. Noble thoughts and ideals that have inspired men of other times find admission into his life. He makes the acquaintance of the world's great and good and they become his friends, his teachers, his guides. The beautiful in nature he learns to appreciate and love, and his eye is trained to see with sympathy the finest work of the etcher and the painter. The aesthetic and the ethical find a meeting place in his heart and knowledge becomes power.

The application of these ideas and principles, so that they may become vitalizing forces, may be made easily and naturally. To illustrate my meaning, we will suppose "Barbara Frietchie" is memorized. How can it be made to touch and quicken life? This inspiring poem has its deep significance in what it



symbolizes. Barbara Frietchie, "bowed with her four-score years and ten," impersonates the spirit of loyalty to the Union and fidelity to the flag that in 1862 drove back the distinguished Southern general from Northern soil. Love for the flag—patriotism—is taught by the story of Barbara Frietchie.

But what does the flag mean? When the boy with enthusiasm says, "I pledge allegiance to my flag and the Republic for which it stands, one nation, indivisible, with liberty and justice to all," what ideas are in his mind? Does he think merely of a patch of bright colors—of a piece of silk or bunting—when he points to the flag? He is told that the colors themselves are symbolic—that red stands for valor, white for purity, and blue for fidelity or truth. But even then what does he mean by pledging allegiance to his flag? He may be taught to see that his pledge means something like this: "I promise my country, represented by the flag, that I will do the best I can in her service. I promise to be brave, pure, and true. I promise to be kind, thoughtful, and courteous, in my home, on the street, in my school, or wherever else I may be. I will always try to remember what others, represented by that flag, have done to help me to live a manly life."

In this way the flag may be made to stimulate and inspire right living. The pupil thus learns that he cannot be true to the flag unless he is first true to himself. No bad citizen can in the highest sense be loyal to the flag.

The flag, then, speaks directly to the pupil, bidding him be something and do something. It fosters cour-

age and manly action. It is positive in its biddings. I wish there were less of the negative in discipline. We have too many "*don'ts*" and too few "*do's*." Many "*don'ts*" encourage the belief that good conduct involves the loss of much that naturally belongs to life. A feeling of restriction to narrow limits is thus engendered. When possible let the direction take a positive form, as though *to be* and *to do* something worthy of a high aim is just what it really is—*moral freedom*.

To sum up what I have said, the highest teaching is inspiration—breathing into the young soul the breath of life—filling it with new desires, new hopes, new aspirations. This is almost a new creation. It quickens sympathy, warms the affections, purifies desire, enlarges the heart, expands the spiritual horizon, and makes a permanent abiding place for the good, the true, and the beautiful. Then follows as the night the day a well-trained will—a noble character. Such manhood—true to nature, to man, and to God, because true to self—is the noblest outcome of common school training. A product so finished calls for heaven-born artists of divine workmanship. Rare as they are, they may be found, modestly but surely raising the standard of Christian living.

### III.

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#### CHARACTER BUILDING IN HIGH SCHOOLS.

BY CHARLES JACOBUS, LATE PRINCIPAL OF THE HIGH SCHOOL,  
SPRINGFIELD, MASS.

On the 8th of last October I received a note from your esteemed president requesting a paper, at this meeting of the American Institute of Instruction, "telling what the high schools are doing in character building." At the same time he expressed his anxiety that it might "appear that our educational institutions are not only making scholars, but that they are making men and women." I have deemed it best to give, in connection with some statements of my own bearing upon the question, the consensus of the opinions of the principals of our leading high schools. I accordingly addressed the following circular letter to forty-two of what might be called our representative high schools, not in New England alone, as a few were taken from the middle and central states :

SPRINGFIELD, MASS., January, 1894.

*To the Principal of ——— School :*

MY DEAR SIR: I have been requested to prepare a paper to be read before the American Institute of Instruction at Bethlehem, N. H., in July next, which shall present as definite information as possible concerning progress in character formation in our high schools.

While the pendulum of progress in the past fifty years has

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been swinging mainly in the interests of the intellectual, and the thought of scholars has been directed especially towards perfecting methods of instruction and courses of study, it will be wise to consider whether, during this period, the moral has kept pace with the intellectual.

It is of the actual and comparative condition of things in this direction that I desire the consensus of opinion, and I send this note to men educationally prominent, with the request that they fill out answers to the enclosed questions, and give such other information as they may deem proper.

With thanks in advance,

Very respectfully,

CHARLES JACOBUS.

With this circular were the following questions:

1. What are you doing in your school in moral training, or character building?
2. How, in your opinion, will the students of to-day compare, in strength of character and manly principle, with the students of twenty or thirty years ago?
3. Is there less discipline needed now, and is discipline more easily administered than formerly?
4. Is the standard of morality higher?
5. Has attention to intellectual acquirements taken the precedence of moral training?
6. Is the average high school graduate stronger to-day, and the probability of his exerting a healthful moral influence greater, than twenty years ago?
7. To what is the improvement in these respects, if any, to be ascribed?
8. To what is the lack of improvement, if any, to be charged?

I received careful replies from just one third of the entire number. We are not to judge that any apathy

upon the subject exists in the minds of the non-replying two thirds; but the communication being six months ahead of time, was at first neglected, and then gradually found itself nearer the scrap-basket, and finally fell into it.

I must embrace this opportunity of returning thanks to the faithful ones for kindly answering the several questions proposed—questions that were intended to be not at all exhaustive, but simply to be the means of securing the opinions of experienced men upon some features at least of the subject.

We will consider the questions and their answers in their order.

It will be necessary, on account of the short time allowed, to condense statements and not to give authority. At the same time, it must be remembered that any attempt to measure moral qualities must depend upon the optimism or pessimism of the individual answering.

1. What are you doing in your school *in moral training*, or character building?

All teaching here is indirect. All believe in what Bishop Huntington has called "*Unconscious tuition.*" In discipline an attempt is made to *appeal* to some moral sentiment. Secure teachers whose characters *command* respect, whose wise counsels and correct examples in life and living will be an inspiration to scholars. An able force of teachers, working harmoniously together and impressed with the importance of character, must powerfully strengthen the unformed characters of pupils.

Efforts are being made to impress the idea of moral

obligation, not by influencing pupils in a mass, but by personal appeal on questions of duty. Natural relations between teachers and pupils are aimed at so as to beget confidence and to get pupils to look upon teachers as men and women, not as schoolmasters. Character building is thus regarded as the chief end of all educational work, and every school exercise as a process of character building.

2. How, in your opinion, will the students of to-day compare in strength of character and manly principle with the students of twenty or thirty years ago?

The great majority of responses to this question gives what our president desired, "a ring of assurance" on the affirmative.

The country academic experience of twenty years ago led one principal to say that the students he has had to deal with the past six years do not equal "in strength of character and manly principle" those with whom he went to school.

Another says the pupils he now has are weaker in character and less manly in principle than his pupils of ten or twenty years ago.

Another *sometimes* feels that the condition of things is not so good to-day. It would be interesting to know whether the physical conditions of this last person, as to indigestion, or atrabiliousness, did not give color to the answer which the question ought *always* to receive.

One principal, while he thought there was more laxity of sentiment and less restraint at home, there was decidedly more direct help along all lines given by teachers to pupils to-day than twenty years ago.

3. Is there less discipline needed now, and is it more easily administered than formerly?

There was only one reply that would question at all an affirmative answer to this, and that was from the same source which gave a vacillating answer to the preceding question.

I can remember the time when the appeals of the teacher or master were literally of a very striking character.

"External stimuli" were the source of disciplinary inspiration. Now, appeals are made to higher motives, and although greater skill is required it is also, of course, acquired; there is more experience to draw from, and the teaching force is far superior in equipment.

So that the belief may be expressed as very general that, although, discipline is a much more complex matter now than formerly, yet for reasons given, there is less needed, and it is more easily (perhaps, because, more skilfully) administered. The answer to the fourth question as to whether the standard of morality was higher to-day than formerly, was given a very decided affirmative by some, while others could see no change, and one was unwilling to compare periods in this respect, though for what reason I cannot imagine. The consensus of opinion seemed to be that considering the question in all its bearings, the standard of morality has kept pace with progress in other directions and that there is *nothing to fear* from a rigid comparison of the standard not merely aimed at, but *reached* to-day, and that of twenty years ago. The fifth question, viz., "Has attention to intellectual

acquirements taken the precedence of moral training?" had very gratifying and assuring answers.

To feel that the advance in moral training has, with its "unconscious tuition," kept pace with the really wonderful advance made along intellectual lines, should serve both to gratify and stimulate every earnest teacher of the young.

Only one expressed a doubt, but in the explanation of his doubt it may really be found, that assurance must take its place. For he says "with the steadily increasing pressure put upon schools to do more and more things, and to branch out in new directions, how could it be otherwise than that the intellectual should take precedence of the moral?" But as one answer expressed it, "Improvement in intellectual training has been, in his experience accompanied by improvement in morals, although no necessary connection between the two." "The moral influence of a school which did not give good intellectual training should be distrusted for it would be a sham, a lie to start with." The lack of system and order, the failure to attend to details, the permitting of go-as-you-please methods, cannot sustain any high moral standard while the opposite would be very helpful.

Till within a few years it must be admitted that the intellectual did take the precedence, in attention. But now emphasis is being put in the right place by both teachers and parents, and the wisdom on the part of those who have arranged the programme of this session of the American Institute is manifest. The community at large is beginning to realize more and more that moral training is of more importance than any



other, and the conscientious teacher will never instruct the head at the expense of the heart. The sixth question, concerning the graduates of our high schools, as to their being on the average stronger in character, and as to their exerting a greater moral influence than twenty years ago, brought out answers of an assuring character. The second question I find was much along the same line. It was thought that the strongest graduates *to-day* are not stronger than the strongest twenty years ago. Yet the percentage of strong graduates is higher now than then. Where the character of the community has not deteriorated *there* will be found manifest improvement, and the high school graduate of to-day surpasses those of former times in the more serious purpose with which he enters life. He is more self-possessed, knows more, has more intelligent ideas about government, and social and political questions.

The improvement in this matter is due to many causes all uniting to secure grand results. The following are the principal:

Teachers are better trained, of broader scholarship, more culture, and greater force of character. By improved methods, studies have been made interesting. The teacher is a guide and trusted friend rather than a disciplinarian. The scholar is led to feel that he is a factor in human progress. The establishment of right precedents, the better understanding of duties; a leavening influence, bound in time to leaven the whole of humanity's lump, and the belief with Victor Hugo that each age, as a whole, is better than any which has preceded it.

Grand results then, have been attained in the opinion of the vast majority of competent critics,—that, too, in the face of the greatest difficulties, among which may be noticed the following :

The materialistic spirit of the age ; the contempt for even rightful authority ; the laxity in home-training and the failure to realize the tremendous responsibilities of parenthood ; the questionable influences on character-growth connected with the too great freedom of the youth's early years ; the reaping of experience before he has any definite moral convictions ; the feeling that success in life depends upon something disconnected from character ; the apparent undervaluing by many of what the teacher says of the supreme worth and dignity of character.

These difficulties are not to be laid at the door of the teacher, however. The teaching body was never more faithful than it is to-day. Its conception of moral truth, moral ends, and of the proper aim of education is *wider, clearer*, and truer than it ever has been in the history of the world, and I believe that in its devotion to its work, it has never stood on a higher plane than in this year of grace 1894.

And now, after simply presenting the thoughts of others, may I not be allowed to give some of my individual experience, with a possible touch of the concrete therein to add force if possible to what has already been said ?

And I shall not, I hope, be deemed egotistic, but may be pardoned, if, at the close of thirty years' unbroken experience in high-school work, especially as I now step down and out from the teachers' ranks, I

mention matters in this connection that are purely personal. I am glad that, in the invitation by which I was honored, that subject was given to me which has ever been dear to my heart, viz. : "Character Building." And it is a matter of which I am justly proud that my last utterances as a teacher are upon this important subject.

I have reason to be grateful that I have lived long enough to see the fruit, so to speak, of trees of my own planting; that my scholars have not only faithfully *shown*, but have sometimes so cheered my heart as to frankly *acknowledge*, the benefits received in the matter of character formation. When a young man tall enough to look over my head, and with a knowledge of proprieties apparently greater than his height, once received instruction, humiliating at the time, but faithfully given and intended for his future good; when he waited till he was a man of a family, and then wrote me, thanking me therefor, it gave me great encouragement *to be bold*, and sometimes, like the surgeon, to cut to the quick, only to be cheered afterwards by correct habits of life and living. And to those who are younger no better advice can be given than, "Be not weary in well doing, for in due season you will reap, if you faint not."

Acknowledgments in this connection are generally tardy or withheld altogether. But the harvest *will* be of the same nature as the seed sown, even though other hands than yours gather the golden sheaves. I have had no special system of sowing seed. I have had no text-book in ethics. For the past eight years, however, I have, as the scholars have assembled on Monday mornings, given occasionally what I have called my

Monday-morning talks. These have been on various subjects, such as "Courage," "Obedience," "The Will," "Work," "Attention," "Order," "Truth," "Tobacco," "Observation," "Reading," "Personal Influence," "Character Building," "Love," "Music," "That Other Fellow" (referring to conscience), "Success," "Concentration," "Friendship," "Courtesy," "Manners," "Thoroughness," "Earnestness," etc.

The witnessing of the successful explosion of dynamite under "Flood Rock," in New York, in October, 1885, afforded a good opportunity to speak of success attained under difficulties. The breaking of the shaft of an ocean steamer in mid-ocean, suggested naturally flaws in character as hindrances to success. The slight variation of the course of the ill-fated *Oregon* afforded excellent opportunity to speak of the sometimes terrible results of a slight deviation from the path of duty. A broken trestle of a railroad would introduce, and point the moral of, thorough work.

Just as a net is spread in vain in the sight of any bird, so, on the other hand, will it be futile if the teacher anticipates with reference to his scholars as to the instruction he would impart. That is n't the way; it gives the whole thing away. You need not dig a flower up to have the moisture reach the rootlets. Put it on the surface properly, and it will trickle down and contribute to its healthful growth.

Teachers and scholars have spoken of the helpfulness of these talks, and of their strengthening influence; the benefit of some biographical sketch, some story, even humorous, to illustrate the subject in hand. In my visits as superintendent of schools in New Jersey,

I always tried to leave a moral lesson, and in such a way as to make the pupils desire more like it another time.

I will here read an extract from a letter received some time since from a former pupil :

"I wish, before closing my letter, to thank you for so many kind words spoken to me in different parts of the school building, and especially for one in particular ; it is this : You asked me one day how I was getting along. I told you, Good in my lessons, but poor in deportment. Then you said to me : 'What good is a cherry-tree if it grows twenty-five feet high and bears no fruit?' That sentence has always been in my mind."

The daily papers afford many opportunities for presenting valuable lessons in the formation of character. They are too valuable to be overlooked. They have a freshness about them, as they are connected with the daily panorama of life, that gives instruction a living force. Incidents in school life will give a teacher frequent occasion for emphasizing the right and condemning the wrong. This will show *where the teacher stands*, a matter of the greatest importance, especially if example clinch the asserted precept.

Above all things a pattern is needed, and just here comes in the great responsibility of the teacher's life. An incarnate morality is what we want first. The principal source of power and influence in character building is the life and the example of the teacher. "It was not," as has been said, "simply Mark Hopkins, the teacher, or Mark Hopkins, the philosopher, but Mark Hopkins, the *man*, which has formed the character of the graduates of the college in Williams-town."

The work of many teachers, intellectually and physically, may be all that is to be desired; but here their work stops, and they may be said to be playing Macbeth in education, and leaving Macbeth out. For

“It is the heart, and not the brain,  
That to the highest doth attain.”

Such teachers leave out the most important of the three H's, which may stand respectively, in order of their importance, for the *hand*, the *head*, and the *heart*. The hand may represent the physical, and embrace within its grasp the features of manual industry, or industrial education. The head may stand for purely intellectual development, while the heart, which is the seat of life, vitalizing and ennobling all the rest, will represent those qualities of character, without which all superiority of the intellectual and all excellence of the physical will be only a mockery of the true education.

It is the eternal feature of the heart and soul that dwarfs everything else in comparison. “All growth that is not towards God,” says George MacDonald, “is growing to decay.” What are intellectual attainments, even though they may be of the highest order, compared “with the rectitude of principle, the inspiration of honesty,” the regard for human and divine law, and loyalty to truth and duty?

“Twenty years from now,” says another, “it will not be the text-books mastered that will determine the controlling influence that our pupils will exercise in the world. It will be the habits of thought and life, the force of character, the purity of purpose, the high con-

ception of life's duty." These will be the *strength of the coming man, and the glory and grace of the coming woman*. There have been pupils of noble teachers, who, in their after lives of integrity and usefulness, have not been able to recall, perhaps a single intellectual lesson, though earnestly taught, but their lives are constant witnesses to the high moral instruction imparted. Not a cold, difficult-to-be-absorbed, text book, heart-education, but a living personified one. Opportunities? Yes, hundreds of them if we will only embrace them!

An example in arithmetic may afford an opportunity to give instruction about deceit and defalcation, or the misappropriation of funds, and a moral truth, which would be possibly uninteresting or uninviting, in the abstract, may by incorporating it with something, find root in the heart and bring forth a hundred fold, in the future harvest time.

I have known a teacher of botany to go far out of the way to secure some flower, whose beauty of form, or exquisite fragrance she wished to show her class.

And shall we not take equal pains to go out of our way to introduce the beauty of those moral truths, whose fragrance, exemplified in human character, will not only be externally exhaled but will serve as seeds, which may continue to reproduce them?

In conclusion I present this modified thought from Ruskin: "As we build let us realize that we are building forever. Let it not be for the present delight, nor for present use alone. Let it be such work as our pupils will, in after years, thank us for, instead of finding fault with us for, and let us realize, too, as we

lay stone upon stone, that a time may come when those stones will be held sacred, because our hands have touched them; and that strong hearted men and women in the years that are to come, as they look upon, and value then, as never before, the results of the labors of our hands, the thoughts of our heads, and the love of our hearts, will say, as the richest tribute of their grateful hearts:—

*"This our teachers did for us."*

### DISCUSSION.

The discussion of Mr. Jacobus's letter was opened by Miss Carrie E. Small, principal of Woodward Institute, Quincy, Mass. She spoke as follows:

It seems almost presuming for me to speak on this great subject, so learnedly and so wisely expounded by able men and women; and yet, remembering that "the eagle suffers little birds to sing," I venture to present the modest experience of my years of practical work in a public high school.

I firmly believe that the public schools, as a whole, exert an influence of positive moral good upon the individual, the home, the state, and the nation. Just as firmly do I believe that no profession is composed of men and women more conscientious as workers, more intense in moral effort, or more moral themselves. Not every teacher is the embodiment of all the virtues that his high calling demands; but examples of moral degradation are the exceptions rather than the rule. That others are not what they should be, offers no excuse to us. Ah! "If to do were as easy as to know what were good to do!"



There is an old saw, oftentimes ridiculed, but which still stands without refutation,—“As is the teacher, so is the school.” The true teacher “gladly wolde he lerne, and gladly teche.” His spirit maketh glad the heart of his pupil.

“For if our virtues  
Did not go forth of us, ’t were all alike  
As if we had them not.”

The aim of the teacher is to educate the pupil; not merely to increase his learning, but to fit him to fill his own little place in the world in the best possible manner for his own good and that of his neighbor; in short, the formation of character.

For the accomplishment of this purpose each teacher has his own method. That seems to me best which least attracts attention as a “lesson” or an “effort,” which forcefully, but quietly and without antagonism, produces the desired result.

“Hm!” said a little girl, after she had heard the story of the fall of man, “the serpent could n’t tempt me with an apple; I do n’t like apples.”

“But,” argued her philosophic little friend, “s’pose somebody told you not to eat apples!”

• Said our janitor one day, “I tell you, managin’ boys an’ girls is jest like breakin’ in colts; yer hev to be kind o’ gentle with ’em, but hold ’em firm. Every now an’ then yer feel like givin’ ’em a whack; but, lor, ’t aint no use, an’ yer might jest as well bite yer lips an’ keep yer temper.”

The ideal school (in which it is to be supposed each one of us teaches) is a place where the child loves to

be; where discipline is not always thought of, but where it is constantly in force, silent, yet speaking through the every minute deeds of each person present.

Sympathy is the open sesame of personal influence with the young person.

As implicit obedience to the needful laws of the school is absolutely necessary, the pupil is led to see that orders are given not to gratify the teacher's love for dictation, but for the comfort of all, and that any departure from them swiftly and surely brings its own punishment. I have never yet seen a pupil who was not amenable to kindness, patience, firmness, justice, and time.

I have in mind now a young man of excellent Pilgrim descent, whose stubbornness, daring, and don't-care-a-tiveness in the early years of his high school course caused the despair of his teachers. He was a nuisance generally, and yet a boy who had no so called "bad habits." Instead of expelling this boy, the principal kept him in school, tried to turn his bodily activity into brain-power, or into useful channels, worked hours at her own home in conversation about his likes,—boats and flowers, and music and drawing,—as well as his dislikes,—lessons and good behavior. Sometimes, seeing the efforts and immediate inconvenience of his teachers, she wavered in the course pursued; but renewing courage and faith, she looked to the boy's future,—and went on. He returned after graduation for a fifth year, entered one of our higher institutions of learning, where he now is, and with a definite aim in life, and firm principles of

right, still stubborn in his opinions, though subduedly so, he gives promise of a good manhood. Certain it is that he has more than once said to that teacher, whom he regards as his friend, "If I ever amount to anything in the world, I shall owe it to you for not turning me out of school."

Who can estimate the moral value of a training that teaches one that "a man should *be* upright, not be kept upright?"

Not many days ago, a man in middle life said of his teacher, "After I left school, and even after I was married, when tempted to do wrong, I always thought, 'What will Miss G. say?'"

It was my happy privilege to enter that same school as a teacher a short time after she left it; from young and old I heard, "Miss G. used to say," and "Miss G. used to do," and the story of her good deeds helped even the stranger.

"She builded better than she knew;  
The conscious stone to beauty grew."

• Diligence, perseverance, punctuality, promptness, truthfulness, honesty, chivalry, "sweet mercy, nobility's true badge," respect for handiwork which makes "a more complete human being," temperance, unselfishness, self-control, reverence, benevolence, willing obedience, patriotism, and all virtues may be inculcated by every instructor by the proper teaching of the subjects or deeds of the hour. A few true incidents will illustrate this principle.

One Friday at recess, a new boy being asked if he was responsible for a certain misdemeanor, replied,

"No, ma'am!" "Very well!" pleasantly replied the principal, "of course you know." "Oh my!" said another little fellow standing by, "won't you catch it next Monday morning!" "Hm! I don't care," said the new boy; "she ain't big enough to hurt anybody—what can she do?" "Do!" cried Dick, "she'll just read to you about liars out of the Bible, and then at recess you'll go and tell her what you did. I'll tell you what," he added significantly in a lower tone, "there's everything in Miss S——'s Bible!"

The same boy, having learned to answer an exact question, had still another lesson to learn. "Is it possible that you so far forgot your courtesý as to throw Miss A——'s ball into the long grass on the green?" inquired the principal one day. "No, ma'am." The teacher hesitated, then, to his surprise, added, "What did you do with it?" Reluctantly came the answer, "I kicked it over there." Then it was he learned that he was not to beg the question, but was to obey the spirit of the law as well as its letter.

The little girl whose fingers pilfered her school-mates' pennies when left in their coat pockets, was reformed by the reading without comment after the morning Bible lesson, "Nanhaught, the Deacon."

A proverbially careless boy was for four years impressed with the idea that all out-of-doors is not his waste-basket. The principal feared lest that effort was in vain, although his interest in school had become markedly great. A few months ago, a young man said to her, "Do you remember how you used to tell Curly to be neater, and how he used to do it just

to please you, but thought you terribly particular? Well! we were walking down Tremont street after lecture the other day, when Curly said, 'Hm! it makes me tired! see that man throw his banana-skins out of the street-car over towards the side-walk; I s'pose he thinks the whole street is his waste-basket!' I tell you so that you may know that we fellows *do* learn something after a while, if you keep hammering at us."

One day a boy refused to obey the orders of two teachers in the class-rooms. He was known about town as "a terror," but the principal had somehow found that he had a tender spot in his heart, and that encouraged her. Reported to remain after school, at one o'clock he came to the desk and indicated his entire willingness to do the work required for the principal, but for no one else. That was *a* solution of the difficulty, but not *the* solution. Although the teacher did not approve of much "after-school" work, especially when a boy is hungry, and therefore cross, she knew that upon the proper management of this case depended the peace of five teachers. At the end of an hour he was still ready to do the work for the principal. Called to the platform for a talk, he still remained respectfully stubborn; at last his head fell upon the arm of the chair and the tears came: no one could tell whether they were tears of penitence or of anger. An hour later he wrote his literature outline for one teacher, copied his history topics for another, and was kindly dismissed.

"Come to the window!" called one of the teachers. Such a sight! There was raging one of those easterly

storms, so furious in a sea-side town. The great trees in front of the school building were swaying to and fro, the wind was shrieking, and the rain was pouring in torrents. There stood Master C., vigorously kicking a large tree, first with one foot and then with the other, finishing the exercise with a thrust of the fist and an explosive "There!!"

I cannot tell you that he was of saintly demeanor thereafter, but he did improve in self-control and obedience and other good things until he was obliged to leave school to earn his living; and to the present week he has a smile and a touch of the hat whenever he passes the teacher who was sorry to lose so great a care.

The teacher teaches unconsciously, as well as consciously. This was once illustrated in a simple way. The principal took the fashion of placing her pencil, when not in use, between the buttons of her dress. She soon became aware that nearly every girl in school was imitating her action. Without a word, except to her associate teachers, she discontinued the habit, and the pupils did the same.

Even the raising of the Bible in a reverent manner impresses itself upon young people.

Said a little girl to one of the teachers of a new school, where, owing to the need of a larger building, the full course of study could not be carried out, "Do we have any manual training in school now?" and as Miss W. was about to reply in the negative, the child added, "Oh yes! we do! reading in the Bible is manual training; is n't it?" When told the story, the principal wondered if that morning she had read,

"Whatsoever thy hand findeth to do, do it with all thy might."

"Against stupidity the very gods  
Themselves contend in vain."

One may be pardoned for his dullness, but sane he cannot be exempt from his moral obligations. Wrote the 'thousand-souled,'—

"There is some soul of goodness in things evil  
Would men observingly distil it out."

If we fail in winning the good, is it not because we hesitate to attempt the struggle, or lack skill for the delicate task?

And yet, how many teachers have awakened a sleeping mind or a drowsy moral sense! Not one alone. In every town of our great land do we not find the earnest teacher who is saying to the next generation of men and women, "Whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise, think on these things."

Do we need to ask if it benefits society to send forth every year from the educational institutions of our land young people taught to realize their life-work of self-support, brotherly aid, personal freedom,—which does not mean license,—and their duties to their country and to their God? Does it not tend toward that new day when

"The war-drum throbs no longer,  
And the battle-flags are furled  
In the parliament of man,  
The federation of the world."

Fellow-teachers, "Character is greater than intellect." When the eye no longer detects the truths of science and the hand has lost its geometric cunning, when memory fails, and the words of great men can no longer be recalled, when foreign languages are sleeping in the dim chambers of the past and historic deeds lie buried beneath the waters of oblivion, the *character still lives*.

Were I to allow a prize to be contended for in my own school, it would be won not by the smartest boy, or the most studious boy, or the most exact boy, but by the noblest boy. Like the queen's annual prize at Wellington college, it should be given "to the boy who shall show the most promise of becoming a large-hearted, high-minded man."

"'T is as great, perhaps, to be noble, as noble things to do,  
And the world of men is better if *one* man grow more true.  
Let us be strong in the doing, for that is ours alone,  
The meaning and end are His, and He will care for His own.  
And if it seem to us little, remember that from afar  
He looks into a world, where we but glance at a star."

Apollodorus said, "If any one were to take from the books of Chrysippus all the passages which he quotes from other authors, his paper would be left empty." The same may be said of the present speaker's presentation of the subject under discussion; but, as a wise man of old has told us, "there is no new thing under the sun," she may perhaps be pardoned for not attempting the impossible.



## IV.

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### CHARACTER BUILDING IN ACADEMIES.

H. S. COWELL, PRINCIPAL OF CUSHING ACADEMY, ASHBURNHAM, MASS.

In these days of falling markets, surplus products, industrial commotion, and social unrest it is refreshing to consider the value of an old-fashioned coin, stamped *character*.

It is not coined by an act of congress; speculators cannot "corner" it; and strikes do not raise its price.

Its value does not depreciate; the supply does not exceed the demand; it always commands a premium; and passes current in the world's markets and the celestial exchange.

It would be trite to sing its praises. It were like painting the lily to exalt its worth. But in an age intensely practical and material, when men worship the golden calf and call it God, when intellectual brilliancy is a dazzling prize eagerly sought, and success is the main thing, there is danger of missing the supreme excellence.

We are constantly reminded that this is a wonderfully progressive age. In matters educational, new departures follow each other in rapid succession. With all our modern improvements, multiplied facili-

ties, new methods, and better-trained teachers we have not yet advanced beyond the old standard of a "sound mind in a sound body,"—which is another term for character—as the ideal finished product of all training. That is the best education which produces not physical brutes, intellectual prodigies, or religious pietists, but well-balanced, symmetrical men and women, those who have clear perceptions of duty and have the power and will to perform it.

For such as these there was never a greater need in public and private life than now.

Character is a state of physical, mental, and moral soundness.

It is not a hot-house plant, neither is it the fruit of an emotional religiosity. It is the fixed habit of right doing and right thinking.

Character-building is a slow and continuous process, and many forces contribute to it.

The character-building trinity are church, home, school, with the emphasis usually placed on the first and second.

The church is efficient but not sufficient. Within its pale, multitudes of youth never come. Of those who do it can claim only a small fraction of the time, and the teachings given in this brief space are too often neutralized by adverse influences outside.

The home—if it is a home—is a force in character-building whose value is beyond the power of language to express.

But thousands of so-called homes are the pestilential breeding-places of vice and crime; others are but restaurants and lodging-places for the inmates; while

in many others, outwardly excellent, busy fathers and well-meaning but incompetent mothers allow their children to grow up. Training is a thing unknown.

While some are ready to assert that the schools fail to give any moral training—and others go so far as to claim that they are nurseries of evil—the school-master, jealous of his profession, is very sure that no agency is more potent in character development than the school.

That "Knowledge is power" is a truism. But it is a dangerous weapon in the hands of the unscrupulous. It is a power that may be as easily consecrated to the services of Beelzebub as to the Prince of Light. The keen blade of the knife is as useful to the assassin who murdered the President of the French Republic as to the surgeon who saves the life of his patient.

The true teacher exalts culture above knowledge, and character above culture. The casual observer fails to realize what valuable lessons, not found in books, are daily enforced in the work of a well-regulated school, or what deep and broad foundations of true manhood and womanhood are quietly but successfully laid.

The observance of the laws of health, personal cleanliness, punctual attendance, the habit of performing prescribed tasks at prescribed times, accuracy, politeness, obedience to authority, regard for the rights of others, purity of speech, honor, truthfulness, patriotism,—all these are taught and exemplified in the school's daily routine.

Do not these constitute the essentials of a strong character?

The school is a little world. The teacher is legislator, judge, and executive. Justice, righteousness, self-denying love, constantly enter into his work, and are the forces by which untrained, impulsive youth of various temperaments and different nationalities are changed into worthy citizens and strong men and women. How effectually the work of character building is being done in the public schools, has been shown by those who have preceded me.

My province is that part of the educational field cultivated by the academies. These institutions have had a varied and interesting history. A century ago and less, they sprang up on many country hillsides in response to an educational demand of the times. To them flocked a multitude of earnest, ambitious youth.

The buildings were neither large nor imposing. The library did not perplex the student by the number or variety of its volumes. The apparatus was sufficiently ample to afford the professor an opportunity for an annual illustrated lecture and furnish amusement for ingenious boys.

Physical culture was not neglected. The boys indulged their athletic propensities in janitor-work or at the farmer's woodpile. The girls learned the art of cooking from necessity while waiting for the weekly supply of food from home. The courses of study were sufficiently elective to satisfy even the president of Harvard. The teachers were extremely versatile, and were not troubled by an overflowing treasury. They lived on faith and the hope of the arrival of belated tuitions and the income of a Sinking Fund. But in spite of their many deficiencies and limitations,

these old-time schools, cradled in poverty, reared by sacrifice, were pervaded by such a spirit of hard work, glowing enthusiasm, and a high moral purpose that they became the nurseries of intellectual and moral power. There are thousands of men and women, both in humble stations and in large spheres of usefulness, in this and other lands, who gratefully acknowledge that these old academies were the chief sources of their inspiration for nobler living.

But changing times brought a period of decline. The tide of population moved toward the large centers. The public schools, becoming more numerous and efficient, secured their patronage. Many academies, lacking financial support and students, closed their doors and disappeared. Others continued a precarious existence. Recent years have witnessed an academy revival. Many of the old schools have been rejuvenated. New ones have arisen. These, clothed with ample and well-equipped buildings, supported by generous and growing endowments, furnished with modern facilities, and adopting the best methods, while cherishing the lofty spirit of their predecessors, are achieving grand results in character development.

In this work of character building three factors are important, viz., material, environment, builders.

In the material used the academy is peculiarly fortunate. It is the high school of the country towns, and its patronage comes largely from the farms and small villages. Most come; few are sent. They are usually the most ambitious and choicest youths of their respective localities. They come from homes that have felt the kindling touch of the higher life.

Of limited financial resources, they appreciate the value of that which costs. Sacrifice makes their privileges more precious. Self-reliance is developed by the necessary struggle.

To be sure, some of them are awkward, crude, unacquainted with the ways of the world, and lacking the social graces of those accustomed to the best society; yet they have not been weakened by social dissipations, and do not possess that overmastering conceit that makes them unteachable.

A beatitude belongs to those who hunger and thirst after *knowledge* as well as *righteousness*.

"One of the best things that can happen to a young man is to be born on a New England farm, attend a New England district-school, and graduate from a New England academy," is a recent utterance of the editor of the *New England Magazine*.

"These fellows who were brought up in the country are the competitors who give me the most trouble in my profession," said an eminent Boston lawyer to me recently.

When Washington Gladden made a census of one hundred of the leading men of Springfield, Mass., he found that seventy-five of them had their birth and early training in country homes.

A few weeks since a young man came to me and announced that he wished to attend our school. He was a "hired man" on a farm, and after a day's work had walked six miles to see me. His shoes, once black, were worn brown. There was a marked deficiency in the length of his pantaloons. His hat would feel at home on the head of a tramp. His hands were

calloused by hard work. His large, honest face had been thoroughly tanned by the sun. "I haint got no father, no mother, no brothers, no sisters," he remarked in answer to my questions as to his personal history. "I lived with my grandfather and after he died I had to work out to pay his funeral expenses. Now I feel as if I wanted to know something more than I do now. I want to come to your academy if you will take me. My folks died on account of their vices, but I believe there is something better than that. If you want to know about my character you can ask Rev. R——, I belong to his church."

As he ambled away in the twilight on his six miles' tramp, I could not help the feeling of sympathy and admiration for the courageous spirit of a youth who was willing to make any sacrifice to secure an entrance into the kingdom of ideas. The academy teacher comes in contact with not a few of a similar spirit. Where can better material be found out of which to fashion self-reliant, upright men and women for which these times and all times stand in so much need? I would not praise the country youth overmuch. But there is a strength and a responsiveness in their natures that promise rich harvests for patient and conscientious seed sowing.

We are the products of heredity and environment. How much we owe to the one and how much to the other for what we are, are questions oft debated. "Blood will tell" is an old proverb. But modern science and the results of social experiments are causing us to place increasing emphasis upon the power of environment to shape moral character. Modern physi-

cal training and medical science have achieved wonderful results in remedying physical defects and deformities by long and patient processes.

Like wonderful results have been accomplished in remedying moral deficiencies by the power of a right daily atmosphere. Too great stress cannot be placed upon the necessity of right surroundings in order to secure the child's healthy moral development.

The late Charles Loring Brace, through the Children's Aid Society, of which he was the founder and soul, was able to save hundreds of thousands by transferring them from the care of their debased and vicious parents in the slums of great cities to Christian homes, where under new conditions they were transformed.

It has been demonstrated that more than nine out of ten of these children have been saved by a change in environment. These facts give significance to the claims of the social reformer.

The academy atmosphere is favorable to the development of character.

These institutions have been for the most part founded and nourished by Christian men and women who dedicated their wealth to the cause of Christian education.

The following is an extract from a letter of one of the founders of a famous and flourishing New England academy written over fifty years ago: "We wish to establish an academy that will insure thorough and systematic education, and lay foundations for a well-balanced, sound, and useful character, not aiming at popularity so much as at real usefulness. We wish an efficient, moral, and religious influence to be constantly



exerted, and that the teacher should feel it his duty to cultivate the heart as well as the intellect." This noble ideal is typical of the sentiments of the great majority of those who established these schools and gave them their distinctive character.

This lofty aim has been kept prominently in view.

This spirit pervades the very air, and finds constant expression in all the work.

The academies are usually located in places aside from the large centers of population. The wide-awake student finds them very dull. They lack the stirring sensations which his active nature craves. But they also lack the social distractions and the evil resorts incident to large places, which dissipate mental energy and undermine the physical and moral foundations.

I deem it an inestimable blessing to growing youth to spend a large share of their time in close companionship with nature. There is a moral tonic in the oxygen that comes from the hills. An intimate acquaintance with the birds, flowers, brooks, rocks, and woods, imparts a strength, breadth, and moral uplift to the nature that rebukes selfishness and makes littleness contemptible.

Also, the forces generated by the mingling of earnest students, coming from different localities with similar aims, kindle noble enthusiasms, and awaken high aspirations.

But the most important factor in character training is the teacher. The best material will go to waste under the most favorable conditions unless there is a competent master builder.

From the experience of nineteen years in academic

work, during which time I have come in contact with many of my fellow-workers, I can gladly bear witness to their conscientious devotion to the realization of the highest ideals of character in their pupils. It would be too presuming to believe that they are of superior moral excellence to any other body of teachers. But their opportunities for exerting a strong moral influence are indeed rare.

They are not subject to the dictates of a political ring or the caprices of a religious hierarchy. There is freedom for the exercise of individuality, and to develop individuality in their pupils.

Two eminent public school teachers recently said to an academy principal: "Your work has always seemed to us to be the most delightful school work in the world. You have such a fine opportunity of coming into close personal contact with the lives of your pupils and can do so much toward shaping their characters."

It is an interesting and critical period in the life of the student when he enters the academy. The home ties have just been broken. The nature is plastic and impressionable. He enters upon new scenes and untried experiences. His nature craves friendly sympathy and expressions of encouragement.

The plans for his life work are only partially formed. At this juncture his life comes in touch with the life of the teacher with whom he is to spend these formative days in relations more or less intimate.

Under these circumstances the wise teacher may become to his pupil a friend, guide, counsellor, inspirer.

It is an exalted privilege that invests the teacher's work with something akin to sacredness.

The personal influence is the most vital and potent force in the shaping of human destiny.

In reviewing the past history of our lives to make an inventory of those things that have entered as constructive forces in our character, we find how largely personal influences predominate.

More important than set rules, far above tracts, gospel hymns, sermons, lessons in moral philosophy, and oft-repeated moral lectures is the subtle, unconscious influence that radiates from the daily life of a true man or woman.

It pervades the air like the sunlight, restraining evil tendencies, quickening generous sympathies, awakening noble impulses, and inspiring lofty motives.

It was the power of their personal influence that gives a magic charm to the names of Thomas Arnold, Louis Agassiz, Mark Hopkins, and of Him who "taught as never man taught."

The blessed consciousness that occasionally comes to the academy teachers in common with all other teachers,—that if true to their mission they are humble builders of the imperishable temples of human character,—is their exceedingly rich reward.

It imparts fresh courage in the constant warfare against ignorance, folly, and wickedness, and glorifies the dull routine of common tasks.

## DISCUSSION.

The discussion of Mr. Cowell's paper was opened by Rev. F. D. BLAKESLEE, D. D., principal of East Greenwich Academy, R. I., who spoke as follows :

I wish first to say that it were well worth the coming all the way from Rhode Island, and even a good deal farther, to hear this most interesting paper. I can hope to do little more than to endorse and emphasize the important truths which it has presented.

The last speaker has well said that character is of comparatively slow growth, and yet in the majority of cases character becomes fixed by the twentieth year. The average age of the academy pupil is about seventeen years. The importance, to its patrons, of the academy as a builder of character can, then, scarcely be overestimated.

The boarding academy, in the very nature of the case, has an opportunity for character-building accorded to no other class of schools. However ennobling, and even superior, may be the personal influence of the teachers of other institutions, this influence is largely confined to a few recitation periods on five days only of the week. In the boarding academy (I say boarding, for all others are little, if any, different in this respect from high schools), this influence is perpetual, and well-nigh everywhere pervasive. It greets the student like the sunlight. It surrounds him like the very air he breathes. For months, for years, oft-times, the academy is the pupil's home. Unlike many homes, the influence here is universally uplifting and generally decidedly religious. It is consciously with him at the very moment of the student's awaking. It is felt at the breakfast table. It follows him to morning prayers, to the recitation room, to dinner, upon the play ground, in social gatherings, in the religious meetings, and in the quiet of the evening study hours

up to the very moment of retiring. Like the law of gravitation, it never lets go.

The influence of this home-like association with the teachers in the dining-room, in the parlor, and in almost numberless other ways, is often very marked in improved manners and greater familiarity with the usages of good society, and "manners make the man," is the old saying. That is, they are an important element in character-building.

The habits of regularity, of orderly method, of system, of self-discipline, of obedience to recognized authority, are inculcated preëminently in the academy. "The battle of Waterloo was won on Eaton playground," said Wellington, referring to his training at that noted boarding-school. "The poorest education that teaches self-control is better than the best that neglects it." The simple fact of learning how and when to study, of acquiring the habit of strictly observing study hours, when all else must be put aside, has been the making of many a man. Other things being equal, the academy-trained boy is invariably the superior in self-reliance and true manliness. "Habit becomes destiny." "It is a channel worn in the substance of the soul, along which our purpose and our ability run with increased facility." "Man is a bundle of habits," we are told. Hence the habits referred to, acquired in his school days at the academy, become an integral part of his character, and again there is emphasized the superior importance of the academy in character-building.

But the academies are preëminently religious schools. The senior bishop of the Methodist Episcopal church is

authority for the statement that four times as many, in proportion to the number in attendance, are led to Christ in the academies of that denomination as in her congregations, and twice as many as in her Sunday-schools. These figures speak volumes in favor of the character-building efficiency of denominational schools. Whatever other excellencies they may possess, no one claims this for the public schools. And yet many of our youth must get their religious training, if at all, in their school days, and from their teachers. The public schools do not and cannot give this training. The academies do, therefore their superiority as character-builders : for religious principle must be the basis of all true character, and of national life as well.

In his farewell address, George Washington says,—“Let us with caution indulge the supposition that morality can be maintained without religion. Reason and experience both forbid us to expect that national morality can prevail to the exclusion of religious principles.”

In this day when the Bible is so ruthlessly hurled from many of our public schools let us recall the words of Huxley, who surely was no Puritan. He says,—“I have always been strongly in favor of secular education, in the sense of education without theology, but I must confess I have been seriously perplexed to know by what practical measures the religious feeling, which is the essential basis of conduct, is to be kept up, in the present utterly chaotic state of opinion, without the use of the Bible.” It is overwhelmingly important that our young people be

under the most positive moral and religious influences during their school days. "True education embraces more than the cultivation of the intellect. The feelings are to be disciplined; the passions are to be restrained; true and worthy motives are to be inspired; a pure morality is to be inculcated; and a profound religious feeling instilled under all circumstances," says Daniel Webster. There is no power whatever in knowledge or intellectual culture alone to make men better. You can't by any amount of cultivation change your weed patch into a garden of roses. You can't veneer punk-wood into oak. You can't polish pumice stone into granite. You can't educate a devil into an angel. The intellect may, through years of culture, rise a polished, shining dome of splendor, and yet it may be reared above a heart which is a dark and seething cauldron of iniquity, and "out of it are the issues of life." "Education makes a good man better and a bad man worse," says Benjamin Franklin, and every day brings fresh confirmation of this truth. An educated villain is far more dangerous to society than an ignorant bad man. The great tidal waves of iniquity which sometimes sweep over the country are not generally started by fools. The men who in our politics are potent factors for evil, and who direct the wicked machinations of the corruptionists, are usually educated scoundrels. We do well in these days of rioting and anarchy to heed the words of De Tocqueville, who says,—“The United States must be religious in order to be free. . . . Despotism may govern without religious faith, but liberty cannot.”

The world needs something more, then, than an increase of refinement and culture. The dagger is not less a dagger because of its polished blade and its jeweled hilt. The poison of the asp is none the less deadly because, forsooth, it is borne to you in a basket of flowers.

Any system of education which leaves out the cultivation of the heart is abnormal and abortive. It may produce giants, but they will be monsters; it may produce intellectual vigor, but at the expense of moral death. Better, a thousand times better, that our youth should be illiterate rather than wicked. The ideal school is that which, with all else, teaches morality and religion; which strives for a rounded development, the motto of which is a sound body, a sound mind, above all, a sound heart.

It is because the academy is the nearest approach to such a school that it is so important in character-building. The principal of a well-conducted boarding-school, desirous of doing lasting work for God and humanity, need envy no college president. The former is putting his impress upon the yielding wax, his hand moulds the pliant clay. The efforts of the latter are too often exerted upon characters that have crystallized. He deals with wax that has set, with hardened clay.

One of the Ptolemies of Egypt once ordered a monument to be made, and the better to perpetuate his memory directed the artist to chisel in the granite base the name of Ptolemy. Instead of this the artist cut his own name in the solid rock and filled it in with plaster in which he marked the name of his monarch.



The plaster hardened, and in succeeding years the passing multitude read the name of Ptolemy which the king fondly supposed was written for eternity. The decades passed; Ptolemy died. Generation after generation passed away. The artist died. The storms of centuries beat upon his work till finally the crumbling plaster revealed the name of the artisan carved in the enduring rock. So it has often been in the matter of influence of the college and the academy. The young man prepares at the academy, at a time when character is forming with mighty strides, graduates from college, attains a position of honor, goes forth with the name of his college stamped upon him. The multitude admire the work of the college, which in many cases is implanted only in the crumbling plaster of his being; while it is the academy which has really made the man, has chisselled with an enduring influence into the very granite of his soul, is the true character-builder.

## V.

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### THE AMERICAN COLLEGE AS A MORAL FORCE.

BY REV. B. L. WHITMAN, D. D., PRESIDENT OF COLBY UNIVERSITY.

One of the questions that press ever anew for answer is that concerning the effect of college training upon life. Undoubted increase of power comes from such training, but is it not won at too great cost? And even when specific elements of power are satisfactorily determined is there not danger to the life as a whole? In what attitude toward truth and duty does it leave the soul?

We shall find help toward an answer if we consider:—

I. Some misconceptions and false ideas of college work.

It would be wonderful if college conditions were always rightly understood either by workers or onlookers. As a matter of fact they are with surprising frequency misunderstood by both workers and onlookers. Misconceptions and false ideas abound. We may note a few:—

1. A supposed lack of safeguards in college.

In many homes the process of entering college stands for initiation into a set of mysteries. What ungodly rites must be performed can only be guessed.

Tugs at paternal and maternal heart-strings make tragedy. Visions of body, soul, and spirit rent in conflict and possibly undone make the hours of parting and Godspeed an hour also of bitterness and tears.

It is the unknown that terrifies. A little first-hand experience dispels these illusions. The other members of the college to which the young man goes are, or were once, very much the same kind of young men from very much the same kind of home as this young man from this home. Neither one year nor four years can transform the average youth into a beast of prey. The college is no menagerie. The world, the flesh, and the devil appeal to the man in college very much as they do to the man out of college. It is the unusual that is emphasized. Injury and delinquency are not the order of college life. Ninety-nine students do their work and not a word is said about it. One fails, and all the world must know it. Men practice sports a thousand hours and that is the end of it. But in the thousand and first hour, some luckless wight falls over himself and breaks his nose, and a special dispatch must be sent to the Daily Newsgatherer. There is danger in college work and college play as there is danger in all work and play. But there are safeguards in college life as there are not in most conditions of life away from college. Competent oversight reduces danger to a minimum. Provision is made for the physical, the intellectual, and the spiritual life. When a body comes out of college worse than it went in—length and breadth and depth of physical being included—there is always a reason for it

in the body itself. Mental disease is as uncommon to students as it is abnormal. Cases of breakdown from genuine overwork are very rare. For every such case in college, in any community fairly comparable two corresponding cases will be found of mental wreck wrought by excessive effort in interpreting Shakespeare or misinterpreting Browning. The spiritual strain of college is greatly overestimated. Men go to the bad in college every year. But what village does not have its record of spiritual failure? The man of passion or ambition runs risk anywhere. The conditions of his undoing lie within himself. He, himself, is his own peril. But he will find help in college if he can find it anywhere. Every college has its associations for religious work and fellowships that aim directly at spiritual uplift.

Mere safeguards cannot save. The man who is ordained by his own helplessness or heedlessness or vice to destruction, will find all roads leading him astray and all objects instruments of evil. Books and teachers and companions only help him to destroy himself. But for a right heart and an honest hope, no course is wiser than that of the student and no life safer than that within college walls.

2. A notion of attainment at little cost.

No illusion is more common than that something can be got for nothing. Bargain counters are not confined to places of trade. The world over, men think it gain when they can beat down the price. This illusion blinds many in regard to college. The mere rubbing of heads against library shelves is supposed to give wisdom. A diploma guarantees everything short

of infallibility. The magic of college annihilates the difference between one year and many. There is wonderful attraction in a short cut. A year or two in preparatory school, a year or two in college, six weeks in a summer institute of medicine, theology, or law,—and with a laugh at the old-fogyism that would spend ten years in place of three, the callow product announces himself ready to heal all ills of soul or body. Once in a while one such finds his way to the world's need. For the most part, however, they find after a little that much as the world enjoys being tricked and played upon, we are still in a dispensation of equivalents and that two and two do not make five. The pressure may be shifted, but *somebody* has to pay the price. If a quack makes a good living it is because ninety-nine honest men have made medicine a science instead of a guess, law a system of justice instead of jobbery, theology a holy calling instead of a means of gain. They carry their own burden and his as well. *The price is paid.*

The principle applies emphatically to college. Education is not gained through physical contact. It is a matter of growth through effort, of inspiration through fellowship, of power through enlarged vision and hope. Two years are better than one; and three are better than two; but neither two years nor three can take the place of four. There is no short cut to wisdom any more than there is to holiness.

### 3. A wrong conception of liberty.

Too much by himself and by others the student has been regarded as standing apart from the duties which other members of the community must accept. Len-

iciency of judgment waits upon performance and non-performance, as if life within college walls were exempt from the obligations which bind other men. Students not infrequently impose inconvenience, if not downright injury, upon one another in the name of college spirit. Class and society relations are regarded as justifying conduct to the last degree invasive of personal rights. Exhibitions of puerility are lightly condoned as simple loyalty to tradition.

This idea of college liberty is a gravely mistaken ideal. The world over, liberty lightly runs into license. College life has not been free from this tendency. This is not strange. Neither is it creditable. In college, if anywhere, we have a right to look for keen sense of justice, large conception of law, ready appreciation of the courtesies of life. The main influences of college are toward them.

4. The development of the book-worm.

The misconception that makes college a training place for athletes differently applied makes the intellectual parasite. There is something beautiful in devotion to books. It suggests literary taste, capacity for intellectual fellowship, life above the physical plane. This is well. But there are species of the order *ptinidae* which show devotion to books. They go to great length in their devotion. They live and move and have their being in books. They devour all. We do not love the genus *ptinidae*. It finds the book merely a means to personal gratification. This is not well. Significantly enough from the nature of the genus *ptinidae* we draw a description of the larger devourers of books. We call them, too, bookworms.

They are never satisfied. But there is a danger point. Reading may become a disease. Books used are among the best of things. Abused they are among the worst. Many a man clever by nature has weighted his head so heavily with books that his brain could not move. Nature is not long in avenging such outrage. The man who is content to be nothing but a bookmark presently finds that he can be nothing more. Books for the sake of reading, reading for knowledge, knowledge for power—this is the better order. Accumulation without use means stagnation. Stagnation is death.

#### 5. Dilettanteism.

Organization of elegant leisure, smattering of useful and useless, amateur delight in the unimportant—such are the marks of the dilettante. More than is meet, college is looked upon as offering scope for such talent. A little Latin, a little Greek, ability to mispronounce German and French, copying of English, guesses in Philosophy—what can a curriculum composed of such elements do for a man except unfit him for practical pursuits!

Though the element of elegant accomplishment enters into all education, no right system regards it as the main element. To exclude it is to make life hard. To emphasize it unduly is to make life useless. The men who make history are not elegant dawdlers, but men of purpose. But in the best of them, place is found for the refinements of life. In them all one great rule is insisted upon. Embellishment must never appear for its own sake. Ornament ceases to adorn when it does not seem to serve some practical

purpose. The beautiful, to appear beautiful, must be conceived as contributing to use. We suffer a man to indulge in leisure only as part of a life of service.

If the conceptions noted were not misconceptions, college life would be unmoral if not immoral. The perils they suggest are real, but they are simply the perils incidental to a certain kind of life. Different conditions would involve different perils. The larger the possibilities of attainment, the larger are the possibilities of failure. College life is subject to the general law of life. Tools are the servants of man. If a man use them unskillfully he suffers pain and loss by them. But for this we may not blame the tools.

Clearing the ground of these misconceptions and the like, we may approach the considerations which constitute the positive ground of confidence in college.

## II. Ends and aims of student endeavor.

One misconception, perhaps the gravest of all, might have been added to the preceding list. The number is very large who look for a result of college life, fixed and definitely marked, weighed, and measured, so misconceiving the fundamental character of education. No new faculties are added by education, not even the faculty of common sense. Education is simply the process of getting the most out of nature. What comes out depends on what goes in. Put in nothing and you take out nothing. Put in material and you take out a product.

But this figure is only coarsely suggestive of the real process of education. The product is spiritual, not material. It is force. It is mastery. The average graduate has not done much when he gets his degree,



but he has ability to do much, and that is the important thing at that stage. All ends and aims of student endeavor issue in this,—life made acquainted with its possibilities and obligations and fitted by command of its resources to do its work. A further word is needed concerning specific forms of this attainment. We note:—

#### 1. Method.

A long way separates the trained intellect from the untrained. Just what the difference is it is hard to put into words. It is in the eye, the face, the foot. The body is more manageable. The hand knows its mission. Subordination, co-ordination, mastery,—these are marks of training. Grace comes of it. Strength comes of it. And this grace and strength comes from something within. There is education of muscle as well as of mind. But physical behavior is already settled when mental action is awakened. As Emerson says,—“Give me a thought, and my hands and legs and voice and gait will all go right.” Bodily habit is determined by spiritual habit. The real work of life is done in the realm of spirit. Bodily strength and agility and endurance are simply part and parcel of the physical machinery by which the work of spirit is done. Their movements are fore-ordained by the decisions of spirit. If the spirit does not know itself and its task, it will use its equipment clumsily. If it knows itself and its task it will send every movement straight to the mark. Just here lies the work of training. Its first word is the word of wisdom out of Athens, *γνῶθι σεαυτόν*. “Know thyself” must be spoken daily, hourly, until the meaning of body, mind,

and heart is beyond question. Then what shall be done with body, mind, and heart? To what end and by what method shall be their use? The question of end, education can answer only indirectly. By discovering what a man is fitted to do, it may show what he ought to do. In its largest sense the end is already determined. The man is larger than any specific calling—larger than a trade, larger than a profession, larger than anything except the world or himself or God. In this sense the end of every man is in his own manhood. Even in the narrower sense of appointed work the end is usually fixed, and training is directed toward fitness for that work. But this office is large enough. It consists in putting a man into such relation to his work that the work will be done with least cost of effort and with least possible waste. It puts him in touch with the forces amid which he walks, and which work for or against him, according to his skill of adjustment. Er, the Armenian, found that the loom of fate wove all that was brought to it. It waits upon the actions of men, takes the threads of volition, and lending them the machinery of the Universe weaves from them the tissue of the irrevocable. The myth of Er is no myth. It is God's truth plainly spoken. The universe is a great machine for doing the will of man. If he can use it, well. If not,—it still works on, feeding on him in lieu of better material. But that is not the fault of the machine. The power of adjustment, or right method, lies in the fact that it makes nature do the work. Success in any department depends upon this. As Le Conte says,—“Scientific methods

bear the same relation to intellectual progress that tools—mechanical contrivances of all sorts—bear to material progress. They are intellectual contrivances, indirect ways of attaining results too hard for bare, unaided intellectual strength.” In a sheer lift, man soon finds his limit. Six or eight hundred pounds or, if he be a giant, twice that will tax him to the full. Lengthen his arm by the lever, and all he lacks is standing room to move the earth. Method is the lever. By its use life as measured by effectiveness is multiplied. The mechanical difference between labor and work is important. Labor is effort put forth. Work is effort made effective. The problem is to transform labor into work. The clumsy man beats his brain, mistakes perspiration for inspiration, spends himself, and at best has scant reward for his pains. The skillful man commands his forces, fits means to end, and sees his purpose bring itself to pass. The secret of the difference lies chiefly in method. To teach method is part of the business of the college. Its courses are arranged with reference to method. The graduate does not know everything. He knows much of course. But what he does not know constitutes a very considerable portion of the world’s stock of knowledge. The greater part of history, of art, of science, of literature, of philosophy, remains untouched. Only the hopelessly stupid supposes he has learned all when he has learned how to spell out the talismanic characters of his bachelor’s degree. But the student has learned something more important than facts. He has learned where facts are, how they may be found, and what to do with

them when found. He has learned to dissect, to compare, to combine. He has learned saving of time, saving of energy, saving of material. Teach a man to do his work in half the time and with half the strain, and you have doubled the length of his life. Nowhere do we come nearer the divine work of creation than in this task of teaching efficiency. The possibility of good in it is beyond reckoning.

2. Power.

Method is nothing but a name except as it is a contrivance for the transmission of energy. More important than method is that which lies back of method and uses it. It matters little by what name we call it—spirit or force or power. There is something in man that lives and moves. To the extent of the possession of that something man can say *possum*, "I am able." To get at that something, and to make the most of it is an end of student endeavor.

It involves development. The untrained man is not so much a fact as a possibility. The elements of grace and strength are in him. Those elements are quickened into activity. Activity means larger life. This goes on not in one but in all parts. Effective development is correlative development. Each part comes to the full that the whole may be complete.

It involves capacity. In its widest meaning capacity signifies room. It suggests largeness. It pictures increase from embryonic or meagre state to maturity, from scant to full. Capacity for endurance, for suffering, for joy, for work,—there is no mistaking the idea. It is power of being acted upon. It is susceptibility to influence. It is receptivity.

It involves inspiration. We deal here with spiritual impulse. The physical picture furnishes the key. To inspire is to breathe or draw in. But other substances than air may be drawn in. Air itself is but another word for spirit, and the lungs are only a contrivance by which spirit provides for its physical purification. Spirit without flowing in upon spirit within, that is inspiration. Quickening of faculty under call to service, enlargement of horizon under the illumination of a noble purpose, glad leaping of heart at the voice of God,—whatever lifts to better life is inspiration, whatever purifies the heart, exalts the mind, impels to worthy thoughts and worthy deeds.

It involves persistence. Intermittent energy is excellent for spectacular effect, but commands little practical confidence. The rocket is beautiful, but after a momentary flare there is nothing but a thud and a stick. For common use we prefer a lamp. One great element of power is steadiness. The woman of Scripture wearied even the unjust judge into justice. Holding on, standing steady, working, waiting,—even the gods are persuaded by patience. Persistence is akin to fate. "All things come to him who waits." It has the promise of God. "Ask, seek, knock, it shall be given."

It involves intensity. Shot that scatters badly does not kill. A pinch of powder fired in the open spends itself in a puff of smoke. Held within limits it shatters the granite. Energy intensified is energy multiplied. Passion is essential to effectiveness. Man impassioned is man charged for service. The man who succeeds is the man who can throw himself

definitely and sharply upon some one end. The man of one look, one aim, one hope, is saved scattering effect, and is likely to prove the dangerous man in conflict. Concentration and directness added to effort make results practically certain.

Development, capacity, inspiration, persistence, intensity, are distinct educational aims. Their product is power. The process of its attainment cannot be without deep significance for life.

### 3. Culture.

Practical difficulty waits upon every profession and trade in tendency to narrowness. Everyone sees objects more or less from his own point of view. States and nations sink into questions of grammar when grammarians discuss them. This is less through deliberate purpose than through natural limitation. Extension is in inverse ratio to intension. The more objects one considers, the less attention can be given to any one. The cost of close attention to one object is forgetfulness for the time of other objects. The rule holds in practical life. Mastery of a calling can be gained only by letting much else go. Of course this does not mean that there is no connection between different lines of work. There is true correlation of all human interests. The highest effectiveness in any calling presupposes such correlation. The effective worker knows much beside his work. Mental recreation and renewal is found in change of study. Newton rested from calculus by astronomy, from astronomy by optics, from optics by chronology. Change of gait is equivalent to a new set of muscles. Change of scene is equivalent to fresh nerves. From an excursion into other fields a

man comes back to his own field with new vigor. But this does not alter the fact that when he chooses his work a man is compelled to turn his back upon what does not concern his work. Man is larger than men. The interests of man are given in charge of men. Individual man is to work out the purpose of generic man. The farmer is man sent into the world to gather food. The mechanic is man set to build houses and ships. The scientist is man charged with discovering the secrets of nature. The philosopher is man inquiring into the causes of things. And so we may go on through the list. Unless some kind of correlating influence can be found, farmer and mechanic and scientist and philosopher will be strangers. Such an influence cannot be confined to any one calling. It must include all callings. Such an influence there is, making men into man. By virtue of his spiritual nature man is larger than any trade, larger than any profession. In this larger life he rises from the individual into the universal. Some name is needed for that larger life. So far no better has been found than culture. Matthew Arnold's definition of culture will stand,—“acquainting one's self with the best that has been known and said in the world, and thus with the history of the human spirit.” We find here a principle at once ennobling and refining. Under it man first finds himself in full possession of himself. With such possession comes the discovery that, important as are practical pursuits for daily life, their chief importance lies in the fact that they are incidents and instruments in the development of a soul.

#### 4. Character.

The development of the soul is after all the main thing. Character is the soul developed. The issue of training appears in this. Education may fail at other points and only prove fault of method. Failure here is evidence that the fundamental principle is wrong. Fruit trees may be diverted to other uses, but their purpose is fruit. Our educational systems may produce other results, but their ultimate reference is to character. Here breaks into blossom and through blossom into fruit, the life that has worked up through successive stages from the lowest. The sublimation of facts and forces is significant. Inorganic matter is broken up and furnishes the elements of vegetable growth. Vegetable growth is re-organized as condition of animal life. Animal life becomes the basis of spiritual life. In the spiritual life of man the significance of nature appears. This does not mean that nature exists simply for the use of man. It means simply that the key to the destination of nature is furnished by the spiritual existence of man. Educational theory takes account of this. In its serious moods it sees that all study has reference to spiritual product in character. It aims not at scholarship, but at scholarly men ; not at religion, but at religious men ; not at Christianity, but at Christian men. There are two sides to the student,—a man side and a book side. The man side is infinitely more important than the book side. In the developed man side is found the realization of God's thought of human life as a temple for his own indwelling.

### III. The practical test.

What does the record of life say concerning the college ?



This:—

1. Times of crisis have shown that our colleges are controlled by the forces that make true manhood.

Allowance must be made for temporary aberration in an institution as in an individual. Besides, difference of judgment is inevitable. But taking one institution with another, with time enough for results to work themselves clear, the colleges may be depended upon to represent the most advanced sound thought and action. A single set of illustrations must suffice. Twice in a hundred years the manhood of the nation has been tried in war. The complete record of the college in war is yet to be written. But the roll of every college that has passed the thirty-five year mark is a contribution to that record. Memorial tablets upon college walls tell a significant story. Many a company in the Revolution bore the college stamp. Much of the hardest work was done by college men. Harvard, Yale, and Princeton were easily the three leading colleges in the country. They stood shoulder to shoulder for freedom. They were as thoroughly centres of patriotism as they were centres of education. The attitude of the leading colleges was typical of the colleges in general. Williams and Mary sent half her students into the ranks. President Manning of Brown was delegate to the convention that framed the constitution. The Civil War added greatly to the opportunities and achievements of the colleges in the line of loyal manhood. In victory and in defeat they were represented by a host of patriots who regarded it as the duty of educated men beyond others to stand for liberty, union, and righteousness. Words spoken edi-

torially in 1862 by one of the leading journals in the country were true then [*Providence Journal*, Sept. 3, '62] and are true now. "The people are seeing as they have never seen before that the colleges are the very nurseries of patriotism, that they furnish the mental, and what we may call, not using the word in a religious sense, the spiritual training which fits young men to do and dare and suffer and die for their country. Never was the sympathy between colleges and people so close. Never did the public so feel that the stuff of which heroes are made is admirably moulded and sharpened in the highest schools of study. Some of the most efficient officers in the service are men whose names we used to read on the roll of college faculties. And many of the most heroic young men, who have sealed their devotion to their country with their blood, were fresh from the halls of learning, their academic laurels having scarcely faded on their brows. By their patience, their endurance, their docility, their superior intelligence, their aptness to learn and to teach, and by their heroic courage, they have vindicated the cause of American colleges and showed to the nation that good soldiers, citizens, patriots, are the fruit of academic training."

2. There is a distinctively moral and religious element in college work.

Even the intellectual work of college has moral bearing. The business of learning is to get at reality. Knowledge of fact is prerequisite to life according to fact. There is no reason why we should be afraid of the study of facts. There are no facts beyond the sphere where God is. If there is a God at all, a God-

less fact is impossible. Godless theories? Yes. Godless guesses? Yes. But no Godless fact. Nay, more, facts are expressions of the nature of God. Truth and beauty and righteousness are simply so many voices telling us of God. Part of the facts are spiritual. It is no safer to ignore a spiritual fact than it is to ignore a physical. The thinker really in search of reality must be as open to spirit as to matter. It is fitting that the citadels of thought should be in the hands of devout men. Great personality is essentially truth-loving and finds its office of teacher discharged in the sphere of spiritual no less than in the sphere of material fact. So no part of college work can be permanently divorced from moral influence.

But there is an element in college distinctively religious. Worship is part of the daily programme. Voluntary devotional meetings are common. Few colleges are without organized religious work. A good proportion of college students are Christians and live like Christians. The number of conversions in college will compare favorably with the number in ordinary church work. College religious life is likely to be under-estimated because of its unobtrusive character. Its conditions are not favorable to spasmodic or demonstrative exhibition. There is an impression that loss of spiritual power is common in college. What truth there is in the impression is true rather of form than of fact. There is likely to be less demonstration in the last year than in the first. There is a religion of emotion and a religion of intellect and will. The life of emotion is more demonstrative but less

useful than the life of intellect and will. In many cases what seems like loss of spirituality is only loss of demonstrativeness. College training puts a check upon emotion, not to kill, but to control it. During the progress of his course a man is liable to spiritual upheaval and wreck for his whole being undergoes change, but in most cases it means settling upon more sure foundations. Impulse gives way to principle, ungoverned enthusiasm to loyalty to duty. There is more material for martyrs at the end than at the beginning of a course.

It must be remembered that our educational institutions have been centers not only of intellectual strength but of spiritual strength as well. American college history does not warrant pessimism. The condition of affairs is not changing for the worse. Of the present graduating class in Yale, out of a total membership of two hundred men, one hundred and sixty-four are church members. That gives eighty-two per cent. of professed Christians. One would hardly be able to match that proportion outside of college except in some kind of religious organization. But a good number of colleges can approximate that record with proportions of from fifty to eighty-five per cent.

3. Our colleges have so far discharged the very important function of preparation for moral leadership.

The learned professions are college bred. The personnel of the medical and legal fraternities warrants confidence that they may be relied upon for advanced thought and high purpose. The theological profession stands upon confessedly noble ground. Its avowed purpose is to lead men to righteousness. In personal

character and in the shaping of religious thought the pastors and divinity instructors of the country are a practically solid body of moral influence. The character of the professions at any time will largely reflect the character of the community. At the same time the professions are constantly moulding public character. In non-professional callings the mark of the college is hardly less apparent. The leaders in most business lines are men whom the college has trained or who are in full sympathy with college training. These are the men who control the resources of Christian work. They know that in spite of all misconception and cavil the college stands for personal development and personal power.

A standing guarantee of the character of leadership made possible through the college is found in the relation of the college to the church. The great majority of the colleges in the country were founded from a sense of religious need. Few, if any, are sectarian, but distinct obligation to one or another religious body inheres for most in the fact that they were established for the better teaching of religious truth. Of the colleges doing the most effective work to-day the number is not small which regard themselves as the agents of the churches. This is conceived in no small way, but in a large and generous spirit, making possible service which the churches themselves do not always at once understand, laying broad foundations for evangelistic effort, leading into a larger intelligence and a larger work.

It is therefore no small thing that so many young men and women are to-day giving themselves to the

exercises of college training. Its discipline, its devotion, its fellowship, become part of life. Its years are no years of idleness, but of most serious enterprise. Through all, the dominating thought is that books and lessons and sports are but instruments for the making of manhood and womanhood. Those who are true to their privilege carry out more character than they brought in. Life is made richer and more effective all through. For most, college years are the key to all after years, by their revelation of personal need and their preparation for personal service.

## VI.

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### **THE AMERICAN COLLEGE AS A MORAL FORCE.**

BY WILLIAM T. SEDGWICK, PH. D., PROFESSOR OF BIOLOGY  
IN THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

Fifty years ago all American colleges were very much alike. Yale, Harvard, Princeton, Brown, Bowdoin, Dartmouth, Amherst, and Williams might almost have been cast in the same mould. As far as I know, the only notable exception was the University of Virginia, in which the elective system already prevailed, and which, in many other points, more nearly resembled the modern university. At that time American life, also, was more of a unit. Society was less differentiated than now, more homogeneous. Fifty years ago, therefore, it would have been comparatively easy to have estimated the American college as a moral force. To-day, on the other hand, to do this is comparatively difficult, because, in the first place, there is now no similarly-stereotyped form of the American college; while American life and society, upon which our higher institutions act, and by which they, in their turn, are acted upon, have undergone, not only variation, but differentiation:

The last half of the present century has been pre-eminently a period of transition and we hope and believe a period of progress, both in society and in education. There has been in both an immense

material development; a prevalence of the scientific and industrial spirit; there has been a wonderful growth of urban and suburban life, and a relative decline of rural living; there have arisen areas of congested population which have acted like powerful electro-magnets, drawing to themselves, subtly but surely, the best life of the country districts, nourishing themselves, as statisticians tell us, mainly upon rural blood. The flooding tide of immigration has cast upon our shores a horde of aliens. The railroad, the telegraph, the telephone, the newspaper, the magazine, have done much to unify, but also much to differentiate. Wealth and power and privilege have increased, and with them have come luxury and laxity, greed and envy, hatred and malice, as well as organized charity struggling with pauperism and crime.

The American college likewise has suffered change and variation. It is no longer cast, to the same extent, in one mould. If we would speak of the American college of to-day we must understand by that term all our institutions of higher education. We must include the modern colleges—which are very different from the colleges of fifty years ago; universities, both real and so-called; professional colleges, law, medical, and theological,—which have also undergone great changes; and, finally, we must include a new order of colleges, mainly professional in aim, but more or less liberal in education—known as scientific or technical schools or colleges. Moreover we shall find the American colleges of to-day more numerous, richer, more differentiated. Answering to a more complex social order they are themselves more com-



plex. It is plain that he who seeks to estimate their functions as moral forces in the modern community, confronts a problem of no ordinary kind. And yet the problem, difficult as it is, is more pressing to-day than ever before. More is expected of education. Less is done in the home. Parents, for the sake of business or pleasure, are seeking to shift more of the responsibility of moral training upon the schools and colleges; but these, and especially the latter, rightly enough are refusing to stand even as much as they formerly did *in loco parentis*. Meantime the church seems to have lost something of its hold; and the result is, or is likely to be unless the danger is realized, that along with increase in opportunity, in comfort, and in wealth, there shall go, hand in hand, insidious moral decadence.

It would be going too far to say that there never was a time when common every-day morality, justice, and respect for the rights of others more needed to be insisted upon. But that unrest of the age which is so marked a feature of it shows plainly enough that loose ideas and looser actions may spring up and grow like weeds in the midst of a fair civilization. Happy shall we be if they do not mar or choke it. In the face of widespread and outspoken defiance of the first principles of law and order we may well ask,—How stand as moral forces our higher institutions of education?

I have been challenged to report how some of our newest colleges, the scientific and technical schools, stand as moral forces in the community. In the brief time at my disposal I shall, therefore, chiefly seek to show that whatever may be the conditions in other quar-

ters a powerful moral influence is steadily being exerted by these colleges, and in directions, possibly, in which it would not have been looked for. Much that I shall find cause to commend in their moral influence is commendable in other higher institutions also. Many of the forces at work in them exist also more or less in other colleges; but some features of moral discipline are either peculiar to scientific or technical colleges, or find in them their best expression.

The colleges which I am about to consider have been developed in response to the claims which our complex modern life is making upon education—claims to which the older colleges for a time were deaf, but to which most of them are now intently listening. I do not need to dwell upon the phenomenal growth of the scientific and technical colleges in attendance and in favor. They have all sprung up (with one exception) since the middle of this century. They are attracting thousands of students and already graduate hundreds every year. In many families from which the sons formerly went without a question to the old-fashioned college, it is now anxiously debated whether they shall go to the old college or the new. Either apart from, or attached to, modern colleges or universities they are now as educators, successful competitors with the modern college and the academic departments of universities.

In two respects most scientific and technical colleges depart very widely from the old-fashioned American college of fifty years ago, namely, in neither requiring nor offering religious exercises, and in refusing altogether to stand *in loco parentis*. To some, therefore, it may

seem that so much having been admitted the case is closed; that by these conditions the moral force of these colleges must be reduced to zero. It will not do, however, for any one to accept this conclusion unless he is ready to go further and concede that the general tendency of all educational institutions of the higher grade to move towards, if not into, the same position in these respects testifies to a decline in their moral force; in which case he will be driven to conclude that things generally are in a bad way among the higher institutions of education. We may rather conclude that these fundamental characteristics are tendencies of the time which found their first, as they find their fullest, expression in scientific and technical colleges, tendencies towards which all other higher institutions are slowly advancing. However much these tendencies may be deplored it is doubtful if they can be successfully resisted.

However it may appear to the superficial observer, the fact is, that scientific and technical colleges exert upon their students moral influences of the strongest and most positive kind. The moral influence of any college does not consist chiefly, or even largely, in the precepts which it offers, but in the practices which it fosters or allows; the degree of truth, honesty, and candor which it insists upon; the industry and persistence which it requires; and the examples which it maintains or commends of plain living, and right, as well as high, thinking.

The colleges with which we are dealing have thus far been favored in their raw material by a kind of natural selection. They have been, hitherto, resorted to mainly by those of a somewhat more serious disposition than

that of many who prefer the older colleges. Hence they have a favorable moral atmosphere in their students. They have also a fortunate reputation for hard work. They are not much given to athletics. They appeal especially to boys who are in earnest. Upon such material it is comparatively easy to exert moral influences with success.

In the second place, these institutions are based firmly upon the elective system, although the election is almost always of a line of work, and rarely of particular studies—prescription of the latter being resigned to the wiser judgment of their professors. From the time when he decides to enter one of these colleges the inevitable necessity of selection of his general line of work confronts the student, and tends to make him sober. Although not wholly unalterable, his choice, generally speaking, is alterable only at the cost of time and money. In the system of elective *studies*, on the other hand, the penalty of error is less severe, and hence the act of choosing is less serious.

Once embarked on his work, the student finds that the end there regarded as indispensable, namely *skill* or *proficiency*, is to be gained only by close clinging to the discovery of truth, which is always accompanied by hard and unremitting toil; and the moral value of the effort required for this consists not only in the positive effect of good deeds done, but also in the negative virtue, sometimes too little regarded, familiarly expressed in that condemnation of indolence which affirms that

“Satan finds some mischief still, for idle hands to do.”

It has been alleged that scientific colleges even go to

an extreme in this particular ; this may occasionally be true, but if it is, no one will deny that occasional overwork is better than abundant moral mischief.

Again, there is much in the nature of the subjects chiefly pursued, and in the methods of pursuing them in these colleges, which possesses high moral value. Science deals with Nature and the laws of Nature. It does not refuse to deal even with human nature ; but it begins with the external world and finds there so much to learn that it cheerfully postpones, for the most part, the more difficult subject. Now Nature is not only "the dear old Nurse" of Longfellow and Agassiz, but also, on occasion, the most rigid of disciplinarians, and the most exacting of teachers. With her, obedience, punctuality, devotion, painstaking, and persistence in truth and in right doing, are absolutely indispensable. Accuracy is one form of truthfulness—inaccuracy is virtual falsehood. Persistency is a species of devotion. The love of truth is allied to reverence and to worship, and the practice of the truth is honesty. Nature has no room for sophistry ; no place for those who put bitter for sweet and sweet for bitter. In making a chemical analysis or a physical measurement ; in testing the strength of materials or separating a metal from its ore ; in building a bridge or constructing an architectural monument ; in purifying a water-supply or computing the buoyancy of a vessel, constant regard must be had to certain inflexible natural laws. An error may mean total failure and loss of many human lives. Nature has fixed certain bounds which cannot be passed without penalty ; has provided specifications which must be fulfilled to the uttermost. Nature—not man—is the real

teacher—the head master—in every department of a scientific school. The constant deference of a student to natural law enforces obedience to the order of nature, which tends towards common sense and sanity.

Much of the social unrest of our time is said to be due to over-education. But this cannot be true. What is meant is not over-education but bad education. Good education should make man not incompetent but more competent; not dissatisfied, but more contented, with the external world; not helpless, but helpful, first to himself, and then to his neighbor. It is a reflection upon our popular intelligence and therefore upon our systems of popular education when strikes, which do only damage to all concerned, can be inaugurated and carried on to end in death and destruction.

Finally, the scientific or technical colleges exert a powerful moral force in refusing to graduate those who have been faithless or idle. They cannot afford to; for indolence and dissipation and neglectfulness will not enable their graduates to build safe bridges, or roofs, or make accurate and trustworthy analyses or estimates. Even prolonged cramming cannot avail for laboratory work undone; and by association in the laboratory with his instructor, the latter may become an efficient moral example, while the student dare not trifle with his work. One of the gravest educational sins of our day—and of any day—is the equal recognition by degrees of all who have spent a prescribed time in college residence and have fulfilled more or less well, certain easy minimum requirements. By thus consenting to a low standard of industry and scholar-

ship, we are simply aiding and abetting a dangerous laxity of moral discipline.

Scientific or technical colleges are not without their defects. They do not at present, to any great extent, inculcate altruism ; and in these days when individual and multiple-individual or corporate rights are menaced by an overweening socialism, this is perhaps well. They look to the home and to the lower schools for this, and also—for “morality touched with emotion.”

In my judgment the American college, of whatever kind, and however imperfect in its moral discipline, on the whole makes strongly for righteousness. Its professors are still, as of old, with few exceptions, given to plain living and high thinking. If it seeks to stand *in loco parentis* it will be found morally wanting. If it encourages indolence or luxury or dissipation or the *dilettante* it will fail. So, also, will it fail if it surrenders itself to the adoration of muscle. Mental fibre is better than muscular fibre ; but best of all is moral fibre.

## VII.

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### **NATURE STUDY IN THE ELEMENTARY SCHOOLS.**

BY, CHARLES B. SCOTT, ST. PAUL, MINN.

Amid such surroundings as these in which we meet, it seems unnecessary to make a plea for nature study. Every rock and crag, every hill and dell, invite and urge with irresistible power. In such a presence is it not almost presumptuous for me to speak of the mental broadening and the moral uplifting which come to the sympathetic, reverent, thinking student of nature as he surveys these mountains and valleys? Need I, a dweller of the plain, tell how much clearer is the vision, how much sharper the conception of these mountains of New Hampshire, which I get from a few hours personal face-to-face contact with them? Could any traveller tell me what I have seen? Can any book bring to me the pictures which these mountains have stamped on my mind? Will not what we see to-day help us better to understand and appreciate picture and traveller and book, telling of these and other scenes of nature? How much better will we, you and I, feel with the poet of nature as he voices the thoughts which speak but cannot be expressed? How much nearer are we drawn to the author of nature, through these his works?

But this is nature study, in nature's grandest labor-



atory, with nature's best instruments, the seeing eye, the hearing ear, the understanding heart. Why do you come here among these mountains for your gathering? Why do you, during half of your day, turn away from hall and platform, from teacher and book, and turn toward the open page of nature? To me this gathering of the devotees of the book, the upholders of authority, in this the very citadel and stronghold of nature, is prophetic; this division of the day between the study of man and his experiences, and the investigation of nature and her story is a harbinger of the better time when our boys and girls shall learn to use their own eyes and ears as well as calmly to appropriate what others have seen and heard, to do as well as to listen, to climb as well as to sit and absorb, to develop mental muscle and power as well as to be carried, to be raised from that which is sordid to that which is noble and inspiring in the works of man and the works of God, to be lifted from nature and through nature up to nature's God.

Shall we shut out from the education of the child that which so helps and develops, so broadens and elevates you and me? To the eye that sees, the swelling bud, the unfolding leaf, the opening flower, the germinating seed, tell a story no less wonderful than that which comes from these mountains, a story of care and purpose and plan. To the ear that hears, the song of the bird, the patter of the rain-drops, the singing of the tea-kettle, and bubbling of the brook, tell of work done and work to be done, of mutual dependence and mutual helpfulness. To the mind that thinks, to the heart that understands, the soil of the field, the sand

of the seashore, the very dust at our feet, tell of action and change.

The child will grasp the thought, will reach after the over-thought. To the child the book of nature is a book of revelation. Will you close it to him or will you open it wide before his eager eyes? The child has been given eyes to see with; while yet in the school of Dame Nature, before he came to you, he used his eyes with wonderful effect. They were the gateway to his world. Will you now limit his vision to the book, keep his eye fixed on the teacher, until the sight is dimmed for all else? The child came to you with expression in every movement, because every sense was alert and through every avenue he was receiving impressions. Will you limit his telling to that which he has not seen, to that which has been simply absorbed from book or teacher? The child entered your school full of curious "whys" and quaint "hows." Nature suggests them. That is nature's way of leading him to investigate and think for himself. You will not deaden this interest and stifle this curiosity, because it is n't in your book, because your scheme of education does not include thinking about that which is nearest to him, his environment. To this child of ours, whose training and education are entrusted to us, mother nature has given the sympathy and enthusiasm of the naturalist coupled with the spirit and imagination of the poet. Surely you will seize this opportunity which nature provides to keep the child turned toward higher and better things.

No, here, in such a place and before such a gathering, nature needs no advocate; she pleads for herself.

Nor need I plead for the child. Nature study and child study are but two phases of the same thing; the child is man nearest to nature, most natural; nature study and child study go hand in hand. Studying nature with the child will lead to the study of the child. Studying the child will, I am sure, lead to nature study.

The child has a two-fold environment—nature and man. In his early life, the world of nature is his world. His earliest education is almost entirely in nature study and by nature's methods, an education of seeing and doing, of using his powers and developing them by using. Is there any reason why this should stop when he enters our school? Is there any more natural way, any better way, of developing his powers, than to follow the leading of nature, help and train him to see and do more and then to tell and think about what he has seen and done? Is there any knowledge which is more essential to him than a knowledge of his surroundings, of his world? Nor can he study anything which is purer and cleaner and more perfect than nature, which will appeal more strongly to the best in him, more effectually lead him up to the great thoughts which pervade all nature.

The education of the past has been too exclusively a study of one part of the child's environment—man and his experience, his language, his history, his methods of exact reasoning. Its method has been too much a process of absorbing knowledge from book or teacher with a resulting loss in the power of seeing and doing and telling and thinking.

The objects of nature study, this continuation in the school of the work of mother nature in childhood, are :

1. To develop the tastes of the child for the beautiful, to lead him to appreciate the best in nature, to think the great thoughts of nature, and to direct him to that which is above nature.

2. To develop the powers of the child, the powers of seeing, telling, and thinking, of observation, expression, and reasoning.

3. To give him a knowledge of all his environment, nature as well as man, of his relations to the present, as well as the experiences of the past.

Having touched on the objects or purposes of nature study it seems wise to consider some of the general principles which may help us in gaining these objects.

In the very beginning we cannot emphasize too strongly the fact that the centre and circumference of this work is the child. Its object is to interest, elevate, develop, and instruct the child. The college professor may teach botany, may plan everything with the sole idea of giving a clear, systematic, well-rounded knowledge of the plant or plant kingdom. The teacher in the elementary schools who thus plans her work will certainly fail. If she would have the best success, everything must be subordinated to the child, everything planned and conducted with reference to his nature and his needs. What he learns about nature is very secondary. What he gets from nature is all important. Success or failure in nature study, or in the method of education of which nature study is the simplest and best exemplification, depends primarily on our center, our point of view. If we approach it from the standpoint of the child, become as little children, we shall enter the kingdom. If we do not, we shall fail.

This has been most forcibly impressed upon me by my own experience. When, as a high school teacher, I first became interested in the work with children, I was fresh from the university laboratory, an enthusiastic student of morphology and anatomy, of form and structure, and with the idea that nature only yielded her secrets to the wielder of scissors and scalpel, to the manipulator of section cutter and microscope. That I could study nature, my own environment, in its natural condition, with my own natural eyes, had not been suggested to me. When I became interested in getting the children at work studying insects, with which we happened to begin our nature study, I naturally assumed that they would study as I had studied. I had found the structure of the grasshopper intensely interesting. So the children even in lower grades were put to work studying, in considerable detail, the structure of the grasshopper. The grasshoppers carefully and humanely killed were placed on their desk and they were asked and helped to find out all about their structure, their body and head, their legs and wings and other appendages. But they, and particularly the younger pupils, were not much interested. They handled the dead creatures in a very gingerly way, and more so after they had been in alcohol some time. They studied the insect carefully and thoroughly and, still following the college method, compared the structure of the cricket with it. But, strange to say, most of the pupils were disgusted with grasshopper and cricket and nature study, and many teachers dreaded "the grasshopper hour."

The study of the butterfly was much more success-

ful. For a scientific study of the insect, to gain a knowledge of the insect structure and plan, the butterfly, with its peculiarly modified parts, was not nearly so good as the grasshopper. But the children were attracted by the beauty and the bright colors and cared little about the structure. To my mind, with a training which tended to make me consider even the butterfly as a wonderful structure, but only a structure, a subject for dissection and microscopic examination, this was disappointing and at first inexplicable. The children listened with interest to the story of the life history of the butterfly, of its development from egg to adult. When some milkweed caterpillars were brought in and they saw them feeding, the interest became greater. When a few fortunate ones saw the caterpillar transform to the chrysalis, and the chrysalis develop into the adult butterfly, they became wild with enthusiasm and scoured the country for caterpillars.

When some pupils, better naturalists than their teachers, brought living crickets into the school, teachers and pupils watched them with the greatest interest, and the pupil who discovered how the cricket chirped was a Columbus. They gathered about even the despised grasshopper and watched his eating and walking and jumping with an attention which they had never given to his structure. Then the structure became interesting and intelligible.

The experience with plants was very similar. The seed became much more interesting after the children had discovered the life in it, had seen it develop and had watched the formation of root, stem, and leaves, and the absorption of the food material. Then the

seed became wonderfully attractive and its structure intelligible. They had discovered its work and had learned what each part had to do.

The leaf, at first studied as a mere shape, became attractive to them and was understood, when they studied it as a thing of life, when, beginning with its beginning, they investigated the ways in which mother nature had protected it during its winter sleep, when they watched the opening buds and saw how carefully each little leaf was packed. The bud revealed to them a story of protection, of care, which pointed to a Protector, and showed that the leaves, thus wonderfully cared for, must have a great work to do. As they studied that work, and saw how work determined structure and influenced form, form had a meaning and structure became interesting.

The lesson came to me slowly; it had to overcome strong predilections for structure and classification, but it was the more deeply and indelibly impressed. The child, and not the plant or animal or stone, must be the centre. Nature must be approached from the child's standpoint. Material and methods must be adapted to the child's nature and needs.

If this is so, if we must follow the leadings of nature, we shall soon find that the first essential is to gain the interest of the child. His senses form the gateway to his world. To interest, his senses always respond, the gate always opens; with interest awakened, with senses alert, every power of the child responds, and there is scarcely a limit to what he can do. This I know from experience. The children show a wonderful power of expression and reasoning, when the impression has

been clear and deep, has come through their senses, alert and wide awake, because of their interest. Nature study will never succeed until and unless the child is interested. Interest is not the end, but a means to a much higher end. I would give as a second guiding principle: keep the child interested. If interest lags, something is wrong. Material or method is not adapted to your pupils. Change them.

A third guiding principle which, as I have said, has been most deeply impressed upon me by an experience full of mistakes, many of you, doubtless, educated with and through and by the child, have long recognized. In the elementary school, and I am firmly convinced, as a result of experiment, in the secondary school also, nature must be approached from the standpoint of life and action, of function and work. The world that appeals to the little child is the world of action and movement. Nature study for the younger children must be entirely a study of living nature—for the children of all grades must begin with life and action. Experience shows that during their first year or two in school children are much more interested in plants and animals than in stones. The children have become enthusiastic in watching the buds unfold and develop leaf and flower, or in observing from day to day (as thousands of our children did this spring) the development of bean and pea and morning glory, the formation of root and stem and leaf and flower, and finally of pod and seed, until the cycle of life is complete. Even the earthworm, from which the children would at first turn in disgust, became very interesting when they had been led to study its burrows and food, watch its



movements, investigate its means of locomotion and trace the circulation of blood in its body. After the study of life and function, structure had a meaning to them. They understood and were interested in it. Even the flower, whose beauty always attracts the child, no matter how approached, became more attractive, had a deeper meaning, when the child discovered that the flower and each part had a special work to do, and learned that even color, and odor and honey were aids in performing this work. Through the flower, that emblem of all that is beautiful and pure, I believe they cannot but gain a higher realization of their place in life, a purer and holier conception of the great mystery of the origin of life.

Even the stones tell the children a story of life or energy or action. The limestone, with which our country about St. Paul is covered, they approached through snail and snail-shell and clam, until the children themselves deciphered the story of the past, which its fossils told. The sandstone is a story, as well as a structure, a story of the action of water. The soil at their feet has told them how water and air have joined hands in making this earth fit for man's habitation. The crystalline rocks, limestone and granite, they understood after they had seen the formation of crystals of alum, and salt and blue vitriol. Then the crystals had a story.

Thus every plant and animal and stone becomes to them not merely a "what," something to sharpen their observing powers, and develop and clarify their powers of expression; the very stones at their feet ask why? and how?; bring into play every power of their mind.

Those of you who have seen the child thus in touch with nature, not merely with the framework and skeleton of nature, have been amazed, as I have been, with the power the children show to think and reason for themselves, and as you have seen the children look up from Madam How to Lady Why (as Kingsley expresses it), have been impressed as I have been, with the truth of the saying, that these things are hidden from the wise and prudent, but revealed unto babes.

From life and function, the main thought in the earliest years, the child insensibly passes to structure and later to comparison and classification. In placing classification first, as is so often done, the order of nature is completely reversed.

We have chosen our centre, the child. We have glanced at the roads, the senses, through which the child is connected with his world. We have felt of the threads so fine and yet so strong, attention, interest, concentration, through which the child and his world are to be kept in touch and the child developed; we have seen how he lives at first in a world of life, and function, and energy and action, whose borders gradually extend to include structure and classification. It seems scarcely necessary to add that in material as well as in method the child's world must be our world, and we must begin with that which is nearest to the child. You ask what to study. That which is most abundant, most common, most a part of the child's environment. Anywhere and everywhere the child is surrounded by the plant world, the germinating seed, the opening bud, the leaf and flower and fruit. My own experience with

teachers has convinced me that plant life furnishes the best material for beginning nature study. The most common weeds and garden plants are the best, the bean and pea and morning glory and corn, the plaintain and burdock and dandelion. These are a part of every child's environment, are abundant everywhere, even in the heart of the great cities; they are interesting, simple, and easily understood, and can be placed in the hands of each child, so that each child can see and tell and think for himself. Their whole life history can often be easily followed. I believe, too, that the teachers are more familiar with plants than with animals or minerals or physics or chemistry.

Need I say: It must be a plant study, not book study, the genuine personal individual investigation of plants by the pupils themselves. The teacher who, under the guise of nature study, merely reads to her pupils or merely has them read about the curious plants and ferocious animals of Europe, Asia, and Africa, and never turns their eyes to the dandelion at their feet, the birds and insects above them, should be shut up in an educational reform school until she amends her ways. The teacher who places before her pupils a book from which to absorb what they should see with their own eyes, who tells them what they should investigate and discover for themselves, violates every law of the educational decalogue.

After some work with plants, which can be most emphasized in the spring, some animal study can be taken up, particularly in the fall. In this, insects and birds will usually be found most abundant, attractive,

and easily studied. During late fall and winter, when living nature sleeps, rocks and soil, water and its forms, air and winds, and elementary physics may take the attention of the child. In all, that should be first selected which is most common, most a part of the child's every day life, which will best lead him to think about, and help him to understand, his surroundings. Later, as his world enlarges, what he has learned about his immediate environment will help him to understand that which is more distant, and become a basis for comparison and classification.

Nature study will not have the best success, unless it sets the child at work studying nature out-of-doors, under natural conditions, as well as in the school-room. It must be a means of bringing out-of-doors into the school and of carrying the school out of doors, of binding together all the child's environment. As the child studies in school that in which he has become so interested out of doors, as he goes to nature to investigate that which he has studied in school, all his environment becomes his school, as nature intended it should be. In this work nothing will be more profitable than occasional excursions, not picnics, but field lessons, more carefully planned and conducted than any lesson in school. Nothing, I believe, will draw teacher and pupils nearer together than to thus become fellow students of nature, fellow-workers in the investigation of truth, under conditions where all are teachers and all pupils. In the field the poorest pupil in school may be the best teacher.

The student must not merely observe ; he must learn to express himself through language and drawing and

other mediums of expression. What is more natural than to have him tell, in words, or by drawing or painting or model, about what he has seen? Will he be more interested in expressing anything else? Is he not likely to do the best work in expression when he has had the strongest impression? We have found it so. The power of the pupils of expressing clearly and truthfully by language and drawing, has shown a very marked improvement. The pupils write and draw better, very much better, because they are interested and have something to tell. Nature study thus becomes a basis for much of the work in language and drawing. It forms, in the earlier years in school, the best possible foundation for geography. It is as closely connected with reading and literature. It becomes, not merely a connecting link between school and out-of-doors, a bond of union and sympathy between teacher and pupils, but also a means of unifying and correlating most of the work of the school, particularly in the earlier years. Nature is one center; the other is man and his experience, more and more important as the child gets older.

The child should first study nature with his own eyes, but he must not be limited to what he sees. He must learn what others have seen. He must look at nature through the eyes of the poet and other loving interpreters of her thoughts. Nature study thus becomes a means of better understanding and appreciation of the best in literature.

The study of nature misses its highest purpose, and the great purpose of all education, unless it leads the child from nature up to the Author of nature. Unless

the seen points the child to the unseen, from care and protection he looks up to a Protector, through function and purpose and plan he sees a Planner, nature has not revealed to teacher and pupils its greatest thought, its grandest lesson.

### DISCUSSION.

The discussion of Mr. Scott's paper was opened by Mrs. Julia M. Dewey, superintendent of schools, North Adams, Mass. She said :

While prizing most highly the intellectual training received from the study of natural science, I think other benefits to be derived from it of equal importance. I refer especially to the ethical and also esthetic effect of nature study in the elementary school.

Perhaps I can best present my views by citing particular observations which I have found recorded in my note-book. Although it is difficult to separate the intellectual from the ethical, I shall try to do so and consider the ethical training by itself.

A year or two ago it was one of my duties to direct and observe the introduction of nature work in a class that had reached a high grammar grade. The class was composed of children low down in the stratum of society. They were mostly children of cotton-mill operatives. Their previous school training had been of the most extreme mechanical order. Boys predominated in the class, and they were withal a stony-hearted lot, impervious alike to severity or leniency. They looked upon a teacher as a mortal enemy, they performed their tasks under compulsion, they sneered at an expression of kindly sentiment, in fact, they were

hard-hearted city barbarians, not the tender-hearted heroes of whom we read in fiction.

In the early spring the subject of plants was introduced. It was much more of a risk to present a plant to these city savages than it would have been to the wild man of the forest. The daffodil was the first subject of study. The first lesson was mostly a failure, the boys treating it as a silly joke, and evincing neither interest nor pleasure except in mutilating the flower, and pretending to eat the bulb.

Nevertheless lessons on the daffodil continued to be given at occasional intervals, when specimens could be obtained, until they bloomed in the gardens. The history of the plant was looked up, myths were read, poems were copied and adorned with drawings of the flower or with imaginative drawings illustrative of the daffodil's struggle for existence in the cold of the early spring.

This intensive study of the daffodil had its effect in due time. The boys began to soften, and showed it by wearing the specimen in their button-hole instead of destroying it. They sometimes appeared in the morning thus adorned, causing their teacher a little compunction lest the softening in one direction had resulted in the hardening in another, and thus led the boys to purloin these blossoms from neighboring gardens. They showed feelings of pleasure when bunches of fresh blossoms were brought to their room. They began to admire the color, not only of blossom and leaf, but the less vivid coloring of the protective coverings of bulb and stem. These they pronounced "as fine as silk." In fact, the interest in this one flower reached

the pitch of enthusiasm, and when at last Wordsworth's "Daffodils" was read and memorized they seemed to thrill with pleasure in their appreciation of that beautiful word-picture, beginning

I wandered lonely as a cloud  
That floats on high o'er vales and hills,  
When all at once I saw a crowd,—  
A host of golden daffodils,  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze.

The study of this one plant seemed to become the key note to other similar study. When other plants of the same family were presented there was no dulness or apathy shown. And interest was not all. There began to be shown a feeling of tenderness toward all plants, as well as toward beetles, earthworms, moths, butterflies, and whatever was studied. A still better result was reached when there settled over the class a calm, earnest, studious spirit which they had never known before. They really began to be imbued with the spirit of science, the spirit of unselfish, reverent truth seeking. They became more patient, more truthful and sincere, more self-reliant, searching out and thinking out things for themselves instead of resorting to trickery in "cribbing," so common in the old-time mechanical school. And last but not least, that stolid indifference, that morose apathy to pleasurable things which is the result of want and low environment, gradually gave way to a more cheerful appearance, proving, it seemed to me, that they had experienced, in some degree, that happiness which comes from sympathy with nature and the joy of discovery.



This is but one of many instances that might be cited to show the ethical effect of nature work. My note book contains many observations upon individuals who have not only been helped in the formation of a habit of self-control and the whole category of virtues resting upon it, but have been actually cured of the opposite.

It may be asked if other objective study will not accomplish the same result. Form study and object drawing, or any study that involves the use of eye and hand in original investigation, tend in the same direction but are not identical in nature and effect.

Now the question arises as to the difference and its cause. The potency of natural interest will not entirely account for it. Possibly the true explanation is found in the belief that somewhere in the upward process of life there came into the mind a "divine spark," or the altruistic motive, or sympathy, sympathy not in its common meaning as affection pertaining to one's fellow men, but in its broader application,—the going out of the mind into the field of life beyond itself. Sympathy for one's fellow men is known to all civilized beings, as is also sympathy for animals, but sympathy with nature, "the outgoing of the mind to the world of life organic and physical," is less understood, because less common and less intense. Professor Shaler says that the love of nature is probably "in effect an overflowing of the sympathies which were originally developed in our kind by love of kindred, chieftains, or the Supreme."

One may easily understand the propriety of using the term sympathy in connection with nature by com-

paring in his own mind the emotion felt in caressing a pet animal or in looking at a bunch of "golden daffodils." The difference is mostly in degree. Compare the feeling with that exercised toward drawing models, or inanimate objects, and it will give some idea of the difference in effect of any object teaching, and that of which nature is the object.

Taking it for granted that sympathy is "native" to the mind, that it really means unselfishness, and that it is of the same nature when exerted upon the physical world as upon one's fellow-men, there can be no risk in saying that science teaching should stand as an important factor in the moral training of children.

There is also another view to be considered because no one can prove the opposite. Nature itself may have an ethical content. The vine may contain within itself the characteristic of docility, the grass of humility, the pine of order and precision, the lily of purity. Ruskin says,—“It is not possible for a Christian man to walk across so much as a rood of the natural earth, with mind unagitated and rightly poised, without receiving strength and hope from some stone, flower, leaf, or sound, nor without a sense of a dew falling upon him out of the sky.” Is the effect of association so strong, or are these qualities inherent in the things themselves? Who can tell?

But whether this theory is chimerical or not, the sympathy of children for nature is not an illusion, proof of which every thoughtful and observant teacher can furnish, and this sympathy being of the same kind as that exercised towards one's fellow-men must produce, in a measure, the same beneficent effect, and

thus must be, not a patent panacea for the sins of the world, but one of those uplifting forces which "make for righteousness."

Esthetic culture derived from the study of nature accompanies the ethical. One of its chief sources is sympathy and the chief factor in its development is a truthful interpretation of nature. The most ardent scientist can hardly be blind to the beauty of nature, much less young children.

Ability to appreciate the beautiful in nature is the only intelligent basis of appreciation of art. There surely can be but one inference in regard to the value of nature study in esthetic culture. The esthetic also strengthens the ethical. He who has the seeing eye and understanding heart for the beautiful must shrink from that which is morally unsightly. To be sure, instances to the contrary have been known, but they are the exceptions, not the rule.

In conclusion : If the intellectual training of science work is the only end sought, there is great waste of time and energy. The ethical and esthetic results alone, could they be separated from the intellectual, would fully justify the exclusion of many things found in the old time curriculum, and the substitution of science. It should even take precedence of literature, for literature may express and incite that which is base. Science or its synonym, truth, is never base.

The instance cited at the beginning of this paper proves all that has been said. In the short space of a school year, a class of pupils experienced a change from apathetic indifference to a degree of happiness, thus in a way, and to a certain degree, realizing the

aim of existence. And thus in a way and to a certain degree can nature-work in the elementary schools bring about that ideal method of moral training which Professor Palmer describes as "leading into those blind but holy ways which make goodness easy."

## VIII.

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### **MOTOR ABILITY IN CHILDREN: DEVELOPMENT AND TRAINING.**

BY WM. H. BURNHAM, PH. D., INSTRUCTOR IN PEDAGOGY IN  
CLARK UNIVERSITY.

Of the many studies of children that have been made, comparatively few have been studies of motor ability. Something has been done, however. Many physiological and anthropological investigations have contributed indirectly to the subject; and a few special researches in this field have been made by Binet and others. Two years ago Professor Bryan completed an important study of the development of voluntary motor control among Worcester school children.<sup>1</sup> And last autumn Mr. Hancock began an investigation of the motor ability of children at the time of entering school; and although his work is not yet completed, he has been able to make a preliminary report.<sup>2</sup> Of this latter work I wish to speak briefly as a noteworthy beginning of research in a very important field, and as introductory to what I shall say of the development of motor ability.

The purpose of Mr. Hancock's investigation was to find what movements children can best make, to learn something more definite of the relative ability of children and adults, and of the relation between develop-

<sup>1</sup> See the *American Journal of Psychology*, Vol. V, No. 2.

<sup>2</sup> See the *Pedagogical Seminary*, Vol. III, No. 1.

ment and decline of motor ability. First, a number of very simple tests of motor ability were devised. The following are examples: Let the child stand with feet close together and hands at his sides; note whether there is any swaying of the body; try this with eyes open, and with eyes closed. Have him try to sit still a half minute exactly; note the movements he makes in the effort. Let him pronounce the following letters and words: r, l, s, t, k, d, f, n, v, y, go, which, thin, the, long, show. Other tests concerned the ability to button his own clothing, to thread a needle, to interlace slats, as in the kindergarten occupation, to count and beat time, to drive a nail, roll a hoop, skate, and the like.

These were simple tests that could be tried by any teacher, and yet they were very general, and there were many sources of error. In order to obtain more accurate results, and to control conditions better in his personal experiments, Mr. Hancock devised apparatus for making certain tests, and for recording the results with accuracy. For example, the first test in his syllabus, which concerned the ability of the child to stand with feet close together, without swaying of the body, the well-known clinical test for ataxia, Mr. Hancock made with a large number of children, using the apparatus known as the ataxiagraph. Not to go into details, this is simply an instrument for recording on a piece of smoked paper the swaying of the body. A piece of smoked paper is pasted upon a piece of glass; this is affixed to a stiff cap, and this cap is placed upon the child's head; the apparatus is then adjusted so that a stationery pen writes on this smoked paper. . . .

The amount of the tracing measures the amount of the swaying; and it is convenient to speak of this by referring to the rectangle which will exactly contain the given tracing. Samples of such tracings are seen upon the chart.

Doctors Bullard and Brackett had already studied the swayings of 150 men in good health between the ages of 20 and 30, and the results of their investigation were taken for comparison. The average of the swayings as found by them were: with eyes closed, 3.764 cm. in antero-posterior direction, by 1.951 cm. laterally; with eyes open, 3.475 cm. by 1.963 cm. Mr. Hancock tested 158 children between the ages of 5 and 7. The rectangle that measures the swaying of the child should be smaller than that of the adult, because the child is shorter; the experiments showed it to be very much larger. The ratio of control between man and the five year old child in the swaying tests was found to be roughly as 1 to 4.

Some of the results in detail were as follows:

	<i>Eyes Open.</i>	<i>Eyes Closed.</i>
35 boys, 5 years old,	5.8000 cm. by 2.2228 cm. ;	6.6810 cm. by 5.7675 cm.
22 girls, 5 years old,	5.7773 cm. by 4.9500 cm. ;	5.5400 cm. by 5.0954 cm.
47 boys, 6 years old,	5.1148 cm. by 4.2660 cm. ;	5.6957 cm. by 5.1637 cm.
18 girls, 6 years old,	5.0611 cm. by 3.7277 cm. ;	5.6000 cm. by 4.3333 cm.
23 boys, 7 years old,	4.9608 cm. by 4.2434 cm. ;	6.0086 cm. by 5.4521 cm.
13 girls, 7 years old,	3.9538 cm. by 3.2769 cm. ;	4.8230 cm. by 3.7615 cm.

The general result was the same in all cases.

Tests were made also to determine the ability of the child to control the muscles of the arm and of the forefinger. The apparatus used I will not stop to describe, but it was similar to that employed in testing the swaying of the body. The results showed a similar lack of

control on the part of the child. The relative size of the rectangles of the man and the five year old child were for the shoulder as 1 to 4.5, for the finger, 1 to 5.8. While these results may not stand with more extended research, the truth evidently lies in the direction they indicate, and it is, perhaps, safe to infer that motor control in the adult, so far as the muscles involved are concerned, is from three to six times greater than that of the child in the first year of school life. The tracings on the chart are samples of the tracings obtained, enlarged about ten times. . . .

A large amount of data has been obtained also from the general tests mentioned. Part of this has been collated, and the experimenter thinks that the results of the two series of tests thus far "seem to justify the following inferences, though more extended research may change or modify them. Children have far less control of their muscles than adults. Generally the girl at the same age is steadier than the boy. Children early learn to make movements involving large muscles. They succeed easily in large movements of some degree of complexity. The order of development of control is evidently from the center toward the periphery, body, shoulder, arm, forearm, and hand. In the hand control, the index finger takes precedence of the others. Fine and complicated movements are made with difficulty. Efforts to keep quiet produce strong symptoms of nervous irritation. Movement is inhibited only in part, and awkward swayings and twitchings result.

"Children in normal healthy growth show a lack of coördination and control paralleled only by ataxic,



choreic, and paralytic patients. In support of this there were found 38 out of 150 dragging the feet or walking with them wide apart when the eyes were closed. The swayings of a very large number equal or exceed those of the ataxic patient." With a test for tremor, which consisted in closing the eyes and holding the hands out horizontally with fingers spread, there were twitchings and tremor in fifty cases. This result seems to be a noteworthy illustration of the theory that movements which are symptoms of disease in adults appear in the normal development of children, that parts of the nervous system that are breaking down in the aged are not yet developed in the young.

Among the other tests tried was the simple one recommended by Dr. Sturgis for detecting incipient chorea or St. Vitus' Dance. Of 150 children only one-half were free from the symptoms of it. This may indicate that a very large per cent. of the children tested were neurotic, or it may be another illustration of what has just been stated, that movements that are symptoms of disease at a later age may appear in the course of normal development.

This study is only preliminary,—there are some sources of error and some defects. As attention varies muscular control varies; and there are individual variations due to the fact that one person is more self-conscious and nervous during an experiment than another; and further, it is difficult to make the conditions the same for children and for adults. But, in spite of these difficulties and defects, this study is a noteworthy introduction to an extremely important field of investigation. The significance and impor-

tance of such studies will appear by considering them in connection with the results of investigations made by physiologists, psychologists, anthropologists, and others, and by showing some of the inferences that follow from these results. I will enumerate briefly some of them, although they may be very familiar to many of you.

First, whenever a muscle contracts from voluntary stimulation both nerve and muscle are involved, and it is impossible to separate the work of the two. Hence, physiologists are accustomed to speak of the neuro-muscular mechanism, the two parts of which are nerve and muscle. This result of physiological research has shown the real significance of the various forms of motor training. The education of the muscles involves training of the nerve centres, and it follows that one can have a symmetrically developed brain only as the result of suitable muscular training, by which alone the motor areas of the brain can be developed. This has been clearly pointed out by Du Bois Reymond and others.

Second, the nervous system grows in the form of its functional activity. From this law of habit a principle of fundamental importance in regard to motor-training results: namely, so far as possible only correct movements should be practiced; every false or wrong movement should be avoided.

Third, although little is known in regard to the sequence of development of the neuro-muscular mechanism, it has been shown that the fundamental nerve centres, or those that control the larger muscles of the trunk, shoulders, and limbs, are developed first,

and the accessory nerve centres, or those that control the finer muscles, as those of the vocal organs, and the fingers, are developed later. This law of development, general as it is, is of prime importance in education; for training must be adjusted to the sequence of the stages of neuro-muscular growth. If the accessory organs are trained before there is a suitable basis of development in the fundamental, detriment and disease is likely to be the result. Complex and delicate occupations for young children are clearly contrary to the physiological laws of development, and all forms of work requiring fine and delicate coördination are out of place at an early age.

Fourth, it has been shown that the different parts of the body do not develop at the same time; perhaps each organ has its peculiar nascent period. Further, observation seems to show that the maximum skill in performing any act can be attained only by training during the period when the motor organs involved are developing. For example, a child can learn to write with least expenditure of energy, and can acquire the greatest degree of skill, if the training be given when the motor centres that govern the hand and arm are developing under control of the eye. We see this illustrated in many familiar ways. In learning piano-playing, drawing, and manual work, and the various forms of gymnastic exercise, the greatest skill can be attained only by training during the nascent period of the organs involved. We know very little at present in regard to just what these periods of development are. The problem of motor training would be a very complex one anyway, but in our present igno-

rance it is impossible to form a curriculum of motor training based upon scientific principles. It can only be said in the most general way that premature training is injurious, and has a tendency, like all forms of precocity, to check normal, healthy development, and is likely to lead to various forms of motor disease; and, on the other hand, that unduly delayed training is irrevocable loss of opportunity. For example, if manual training be neglected during the years before adolescence, the greatest skill can seldom be attained afterwards. That marvelous difference in functional power between the brain of the skilled workman and that of the beginner is the work of nature. All the teacher can do is to produce certain movements and check others. Nature must be trusted to produce those mysterious processes of motor memory or habit which we call skill. This work she consents to do generously at certain periods. It is our task to find out her times and seasons. A new physiology is needed which shall show the sequence of the different stages of growth, and their relation to the development of organic, sensory, and motor functions. Until we have such a physiology our curricula for motor training must be largely empirical.

Fifth, it has been shown that the normal end of thought is action of some kind. Psychology has not solved the metaphysical mysteries of motion, but it has found some of the conditions of it in the human organism. It looks upon the human organism as a federated union of tissues, of which the nervous tissues are the controlling ones; for the sake of simplicity it looks upon the nervous mechanism as a machine for convert-

ing stimuli into reactions ; it points out that movements occur on occasion of stimuli, and ignoring exceptions, it lays down the general law that every possible feeling produces a movement. The reflex arc is the type of all that is accomplished by the nervous system. First, an incoming nervous current along a sensory nerve ; second, a central process more or less complicated ; third, a nervous discharge along a motor nerve to innervate a muscle, gland, or the like. The central process may be long and complicated, corresponding to a long train of thought, but the final goal is always a movement of some kind. Thus our thoughts have been called half-way stations to action ; and, as Professor Bain says, "thinking is restrained acting or speaking." Psychology looks upon all the different forms of motor activity, speaking, singing, writing, drawing, and all the various forms of hand work, as modes of expressing thought. The making of a wooden box is the expression of thought as well as the writing of a composition ; an experiment in the laboratory may be no less an expression of thought than an oral recitation. This is merely putting in a new way the old truth which Carlyle expressed so forcibly, when after marvelling at the mysterious bits of white paper with traces of black ink, that in his opinion were the purest expression of thought, he added : "All that he does and brings to pass is the vesture of a thought ; this London city, with all its houses, palaces, steam-engines, cathedrals, and huge, immeasurable traffic and tumult, what is it but a thought, but millions of thoughts made into one ? A huge, immeasurable Spirit of a Thought, embodied in brick, in iron,

smoke, dust, palaces, Parliaments, hackney coaches, Katherine docks, and the rest of it. Not a brick was made but some man had to *think* of the making of that brick."

Among the results which may be hoped for from further study of motor ability of children are the following: First, a more definite knowledge in regard to the sequence of the different stages of development. Second, studies of the motor ability of children at different ages, especially at the time of entrance upon school life, will furnish data from which we may decide more intelligently than now, whether manual training should be a part of the school curriculum or not, and if so, how far it should be carried. This will, of course, by no means settle the question; but if it is found that children do not get proper manual training outside the school, or that a large part of the children do not get such training, this will be an important fact to consider in determining the question, which is now an open one, in regard to how much motor training it is the province of the school to give. Third, we may hope from further study of motor ability to learn something a great deal more definite than we know now in regard to the relation between will and attention, and the motor processes involved in volitional activity. And, finally, we may hope from further study of motor ability to learn the causes of the various forms of motor disorder, how far the school is responsible for them, what simple tests may be employed by teachers to detect such diseases in their school stage, and what are the best means of prevention to be employed by teachers and parents.

A few practical inferences seem to be justified by the results already obtained. It is clearly wrong to give work in the kindergarten or primary school, which involves complex coördination of the fine and delicate muscles. The work should be large, and the tools used should be large; fine and delicate work is not only unduly trying to the eyes, but it is obviously contrary to the laws of physiological development. In drawing, the work at first should be large, and should concern the reproduction of essential features; all attention to detail should be postponed until a later stage. Professor Barnes has rightly concluded from his study of children's drawings that attention to detail and exact reproduction at first, is likely to kill interest, and that the grammar of drawing should be postponed until a much later age. In voice training we are perhaps especially liable to give what is too difficult at first. Gabini, who has made a careful study of the development of the voice in young children, says that nearly all the music written for children is far beyond the compass of their voices, and entirely unsuited to them. In all manual training and physical exercise also, the work at first should be that which involves the use of large muscles, and all fine, delicate, and accurate work should come later. Again, it appears that it is contrary to nature, as Basedow long ago pointed out, to insist that young children keep still. In all cases, it is, of course, necessary to teach self-control, but nature's order is to give first the power, and then to teach control of power. We must teach children to move and to walk before we teach them to sit still. The reversal of these rules, and

insistence upon fine and delicate work from the first, and any premature acquisition of control and inhibition, like all forms of precocity, is dangerous, and nervous disorders are likely to be the result. The whole kindergarten and primary school course, so far as motor training is concerned, should be carefully studied in the light of these principles.

The demand for increased attention to motor training is thoroughly healthy and sane ; it is a part of that great movement in education which emphasizes the active, the creative, the productive processes, and demands performance as of greater importance than criticism. There have always been two tendencies in education, one is negative and critical, giving attention to what others are doing rather than to one's own performance, developing the receptive powers rather than the active, stopping short with sensation and thought, instead of proceeding to action. This tendency has been illustrated often by the universities. Oxford has long stood for a type of this critical spirit. Lang says of the Oxford undergraduates: "This inability to put a work through, this dawdling erudition ; every Oxford man knows them. . . . They live in an atmosphere of criticism, they collect notes, they wait, they dream, their youth goes by, and the night comes when no man can work." The same critical tendency has often been felt in this country, and the same spirit of criticism seems to be developing among all classes, from the laboring man to the university-graduate. Such a spirit paralyzes and deadens activity. The active educational ideal is opposed to all this. It is sympathetic rather than critical, posi-



tive rather than negative, and as one means of developing the ideal of performance rather than that of criticism, it insists upon proper training of the muscles.

What has been said is, I hope, enough to show the importance of studying the development of motor ability in children. The results of such study promise to be of very great practical value. If the various forms of motor training are to be fully successful, we must understand more than we now do about this subject. The old manual labor school, which was a significant beginning of active education in this country, failed because its promoters had no conception of the real educational significance of manual work. If the present movement for manual training is to succeed, we must understand the real meaning of such training, and the relation of it to other forms of education.

In conclusion, I should like to emphasize the importance of motor training. Modern physiology has shown that by the various forms of motor training the nerve centres of the brain are educated, and that symmetrical development is possible only by such training. Psychology has shown that motor images play a great role in our mental life, and that he whose muscles are untrained is lacking in one important form of imagination. And further, it has been shown that the various forms of motor activity are various ways of expressing thought; in a word, that expression of thought is possible only by the contraction of muscles. The grand thing in man is his power to think, and to feel, and to will. Philosophical writers have not wearied in marveling at the dignity of man's thought, at the divinity

of his power to love, and at the autonomy of his will. But man is useless, shut up from the world, "himself his own dark jail," unless he expresses his thought and his feeling; hence the dignity of the muscles. Thought is unexpressed, love unknown, and the will a slave, unless the muscles contract. The sublimity of the human will, which, with the starry heavens above and the moral law within, divided the admiration of Kant, shares some of its grandeur with the tiniest muscle, because the development of the will has been largely dependent upon the development of the muscles, because without them its autonomy would remain unknown.

### DISCUSSION.

Mr. W. W. STETSON, Ph. D., superintendent of schools, Auburn, Me., opened the discussion of Dr. Burnham's paper. He spoke as follows:

Stated in unscientific terms, the topic under consideration is, "Have our children the capacity to do the work the age assigns them, and if not, how may it be secured?" To answer these queries we must ascertain what the children are, what have produced these conditions, and what will improve them.

All admit that upon our power to do will be built all our achievements. Possessing it, we may succeed; lacking it, we must fail.

Scientific study and casual observation seem to unite in the decision that many of our children in the public schools are deficient in motor ability. I am persuaded that parents, teachers, and the community, are about

equally responsible for this unfortunate condition of affairs.

Many parents put the most of their vital force into their work and dissipation, and endow their offspring but sparingly with this gift. The home, in its general tone and particular arrangement, too often tends to excite degenerating emotions rather than to develop abiding attachments. The dress of the average child is intended to attract the attention of observers, and absorb the thought of the wearer. His food is stimulating and irritating instead of satisfying and nourishing. But few children have any well defined duties or responsibilities in the home. They spend a large proportion of the time not devoted to school or sleep in walking the streets, vicious gossip, idle loitering, and questionable games. Street scenes, social gatherings, and public entertainments in unending variety and unceasing recurrence keep the mind in an unwholesome state of excitement, and their emotions in a ferment of dissipation. The control of the children in the home is slight, fitful, and unnatural. Obedience is often hesitating, or authority is openly defied. All these conditions and permissions tend to an abnormal development, and result in weak intellects, small self-control, and but little of that peculiar force that characterizes a strong personality.

Many teachers know but little about the child they attempt to mould. Possibly some do not understand the terms that name his qualities and powers. The motives that influence, the ideals that inspire, and the history that reveals his inheritance of fibre, aptitudes, and tendencies are but little studied, and therefore but

slightly modify their methods of instruction or systems of management. Although but few teachers are prepared to make a scientific study of children, yet a hopefully increasing number are coming to see that the child must be studied if the teacher is to do her duty by him. To aid in this work of deciding how much the child ought to do when the best opportunities are offered him and he is skilfully directed in doing his best, the outlines appended to this paper have been prepared and placed in the hands of my associates. Much of the work done is necessarily crude, and most of it has but little scientific value. But experience has led me to feel that it is as reliable as most teaching, and it certainly bids fair to help the teachers to use their time to better advantage than struggling over the mysteries of "Foreign Exchange."

The study of the child should have for its object the rendering of the teacher more useful to the pupil, and it should enable her to put the pupil in the way to make the most of the best in him. To do this she must know his history, and possessions, physically, mentally, and morally. Then she is prepared to train his gifts, and nurture to a helpful force his deficiencies.

Among the mistakes in our work that have contributed to the marring of children, the following may be noted: Their aptitudes and deficiencies are not generally recognized, and but little effort is made to use the former or remedy the latter. Children are dealt with in the mass. They are hedged about, controlled, marched, and recited, in platoons, until they lose their individuality and power of independent work or thought. But few people recognize that there is something mas-

culine about every girl and something feminine about every boy. Not many seem to realize that both need the help that is gained by associating with a brainy, cultured, and vigorous man, and a refined, cultured, brainy woman. From the one they derive self-reliance, masculine force of character, and an ambitious quality and fibre. By the other the harsher lines are softened, the personality is rounded and balanced, and the gentler and nobler elements are emphasized. This dual association arouses the intellect, schools the emotions, and strengthens the will. It was a calamitous day for the children when the men were excluded from a vital and formative contact with the youth. The mental, moral, and motor limpness so painfully manifest in some of the children is to some extent due to this change in instructors. Women should predominate, but should not dominate in our teaching force. Our courses of study indicate that their compilers feel that the results of thinking are of greater value than the processes by which they are reached. The children are overloaded with too many and too great a variety of facts. Cultivating self-control, concentration, endurance, and application are not yet recognized as being on so high an educational plane as insignificant towns, unimportant dates, and meaningless definitions.

To develop the power to do the child must be thrown on his own resources for themes of thought and means of growth. He must be, at times, isolated from his fellows, and brought in closest contact with his tasks and nature, and left to work out his problem and mental salvation. He must be an interesting companion

Parents of pupils: . . .	{	American.....		
No. reported.		French.....		
		English.....		
		Irish.....		
		German.....		
		Russian.....		
		Italian.....		
		Other nationalities.....		
Physique: . . . . .	{	Sturdy,	boys....	girls....
No. reported.		Vigorous,	" .....	" .....
Boys.... Girls....		Flabby,	" .....	" .....
Av. age. Boys... Girls..		Puny,	" .....	" .....
		Deformed,	" .....	" .....
Carriage: . . . . .	{	Erect,	boys....	girls....
No. reported.		Graceful,	" .....	" .....
Boys.... Girls....		Shambling,	" .....	" .....
		Awkward,	" .....	" .....
Intellect: . . . . .	{	Great grasp,	boys....	girls....
No. reported.		Strong,	" .....	" .....
Boys.... Girls....		Active,	" .....	" .....
		Brilliant,	" .....	" .....
		Sluggish,	" .....	" .....
		Weak,	" .....	" .....
		Very weak,	" .....	" .....
Will: . . . . .	{	Resolute,	boys....	girls....
No. reported.		Stable,	" .....	" .....
Boys.... Girls....		Controlling,	" .....	" .....
		Stubborn,	" .....	" .....
		Wilful,	" .....	" .....
		Weak,	" .....	" .....
		Very weak,	" .....	" .....
Emotions: . . . . .	{	Sensitive,	boys....	girls....
No. reported.		Under control,	" .....	" .....
Boys.... Girls....		Not under control	" .....	" .....
		Mould conduct,	" .....	" .....
		Do not mould conduct,	" .....	" .....
		Impulsive,	" .....	" .....
		Irritable,	" .....	" .....
		Unstable,	" .....	" .....
		Uncertain,	" .....	" .....
		Uneven,	" .....	" .....

a right to demand at our hands men and women fitted to do its work.

It is proper to state that the conclusions given in this paper are mostly based on data obtained by our teachers in the study of the children in the Auburn schools.

See "A" and "B."

"A"

AUBURN, MAINE, 1894-'95.

You are requested to make a careful study of each of your pupils in the particulars indicated below. Do not judge them by single facts. Strive to make your estimate as accurate as sympathetic study can render it. Having satisfied yourself of the justice of your decisions place X's after the words that express your judgments.

It is hoped that a faithful compliance with this request will enable you to better understand your pupils, and from this knowledge be prepared to strengthen their weak places and develop those powers that give promise of proficiency in some worthy work.

Please retain the individual slips for reference and send the summary of your school to me.

W. W. STETSON,  
*Supt. of Schools.*

*Name of Pupil*..... *Age*.....

*Name of his Class*.....

*Name of Teacher*.....

*Name of School*.....

What was your favorite study when a pupil?.....

What would you prefer to study were you to attend school again?

.....

What branch would you prefer to teach?.....

Whole number of pupils enrolled: boys.....girls.....

No. who are deficient in: No. reported. Boys.... Girls....	{	Reading,	boys... girls....
		Spelling,	" " " "
		Writing,	" " " "
		Drawing,	" " " "
		Arithmetic,	" " " "
		Language,	" " " "
		Music,	" " " "
		Geography,	" " " "
No. who read outside of text-books: . . . No. reported. Boys.... Girls....	{	History,	" " " "
		Nature Studies,	" " " "
		Excessively,	boys... girls....
		Largely,	" " " "
Character of books read: No. reported. Boys.... Girls....	{	Reasonable amount,	" " " "
		Little,	" " " "
		None,	" " " "
		Standard,	boys... girls....
Special talent for some one thing, Special talent for no one thing, Aptitude for several things,	{	Helpful,	" " " "
		Trashy,	" " " "
		Vicious,	" " " "

## "B"

Language written and spoken . . . . . No. reported. Boys.... Girls....	{	Characteristic,	boys... girls....
		Felicitous,	" " " "
		Clear,	" " " "
		Appropriate,	" " " "
		Concise,	" " " "
		Expressive,	" " " "
		Verbose,	" " " "
		Slovenly,	" " " "
Articulation and Pro- nunciation: . . . . No. reported. Boys.... Girls....	{	Indefinite,	" " " "
		Meaningless,	" " " "
		Incorrect,	" " " "
Memory: . . . . . No. reported. Boys.... Girls....	{	Pleasing,	boys... girls....
		Accurate,	" " " "
		Distinct,	" " " "
		Inaccurate,	" " " "
	{	Indistinct,	" " " "
		Mumbling,	" " " "
		Dawdling,	" " " "
	{	Retentive,	" " " "
		Ready,	" " " "
		Verbal,	" " " "
		Weak,	" " " "
	{	Very weak,	" " " "



Reason: . . . . . No. reported. Boys.... Girls....	{	Strong,	boys....girls....
		Normal,	" " " "
	{	Weak,	" " " "
		Very weak,	" " " "
Morals and Habits: No. reported. Boys.... Girls....	{	Truthful,	boys....girls....
		Untruthful,	" " " "
		Trustworthy,	" " " "
		Dishonest,	" " " "
		Obedient,	" " " "
		Disobedient,	" " " "
		Vicious,	" " " "
		Malicious,	" " " "
		Depraved,	" " " "
		Unstable,	" " " "
		Humane,	" " " "
		Polite,	" " " "
		Punctual,	" " " "
		Methodical,	" " " "
		Unmethodical,	" " " "
		Attentive,	" " " "
		Inattentive,	" " " "
		Persistent,	" " " "
		Lazy,	" " " "
Manners: . . . . . No. reported. Boys.... Girls....	{	Courteous,	boys....girls....
		Refined,	" " " "
		Gentle,	" " " "
		Reserved,	" " " "
		Coarse,	" " " "
		Rude,	" " " "
		Clownish,	" " " "
		Rowdyish,	" " " "
Motives and influence: No. reported. Boys.... Girls....	{	Dudeish,	" " " "
		Honor,	boys....girls....
		Love,	" " " "
		Praise,	" " " "
		Rewards,	" " " "
How controlled: . . . . . No. reported. Boys.... Girls....	{	Desire to excel,	" " " "
		Fear,	" " " "
		Muscle,	boys....girls....
		Will,	" " " "
		Emotions,	" " " "
Attitude toward School: No. reported. Boys.... Girls....	{	Self-control,	" " " "
		Attached,	boys....girls....
		Interested,	" " " "
		Indifferent,	" " " "
		Hostile,	" " " "



## IX.

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### **THE UNITY OF EDUCATIONAL REFORM.**

BY CHARLES W. ELIOT, LL. D., PRESIDENT OF HARVARD  
UNIVERSITY.

The report of the Committee of Ten has now been in the hands of the teachers of the country for about six months, so that there has been time to formulate and publish some criticisms and objections. I propose to comment in this paper on one criticism or objection which, in various forms and by several different persons, has been brought before the educational public. Whenever I speak of the report, I intend to include the reports of the conferences as well as the proper report of the Committee of Ten; for the chief value of the total report lies in the conference reports.

The objection to the report which I shall discuss is contained in the question, "What do college men know about schools?" Those who urge this objection say in substance: "more than half the members of the conferences were at the moment in the service of colleges and universities, and the same was true of the Committee of Ten. The wise management of schools for children of from six to eighteen years of age is a different business from the wise management of colleges and universities. Not only is the age of the pupils different, but their mode of life, and the discipline they need, are also different. The mental capacity of young children

is low compared with that of college students; their wills are weaker; and their moral qualities undeveloped. How can men who teach and govern young people from eighteen to twenty-four years of age, know anything about schools for children? Let them attend to the higher education, and not attempt to teach experts in elementary and secondary education how to conduct their very different business. That a man has succeeded in conducting a college or a university makes it altogether probable that his advice will be worthless as to the best mode of conducting a school, or a system of schools. We school superintendents and principals have to handle masses of average material; your college or university teacher has only a small number of exceptional individuals to deal with.

To meet this objection I wish to affirm and illustrate the proposition that the chief principles and objects of modern educational reform are quite the same from beginning to end of that long course of education which extends from the fifth or sixth to the twenty-fifth or twenty-sixth year of life. The phrase educational construction would perhaps be better than the phrase educational reform; for in our day and country we are really constructing all the methods of universal democratic education. We seldom realize how very recent and novel an undertaking this educational construction is. As a force in the world universal education does not go behind this century in any land. It does not go back more than twenty years in such a civilized country as France. It dates from 1871 in England. Plato maintained that the producing or industrial classes needed no education; and it is hardly

more than a hundred years since this Platonic doctrine began to be seriously questioned by social philosophers. It is not true yet that education is universal even in our own land; and in all lands educational practice lags far behind educational theory. In this process of educational construction, so new, so strange, so hopeful, I believe that the chief principles and objects are the same from the kindergarten through the university; and therefore I maintain that school teachers ought to understand and sympathize with university reform and progress, and that college and university teachers ought to comprehend and aid school reform and progress. Let us review together those chief principles and objects, although in so doing I shall necessarily repeat some things I have often said before.

I. The first of these objects is the promotion of individual instruction—that is, the addressing of instruction to the individual pupil rather than to groups or classes. At present the kindergarten and the university best illustrate the progress of this reform; but the beneficent tendency is clearly exhibited all along the line. In elementary and secondary schools the effort is constantly made to diminish the number of pupils assigned to one teacher; and in some fortunate secondary schools the proportion of pupils to teachers has already been intentionally made as favorable as it has incidentally become in the most prosperous universities which have been adding rapidly to their advanced courses of instruction. In urban school systems the number of pupils assigned to a teacher is recognized as the fundamental fact which determines better than any other single fact the quality and rank of each

system among those with which it may be properly compared. Into the curricula of schools and colleges alike certain new matters have of late years been introduced, for teaching which the older methods of instruction,—namely, the lecture and the recitation,—proved to be inadequate, or even totally inapplicable. These new matters are chiefly object lessons in color and form, drawing and modelling, natural sciences like botany, zoölogy, chemistry, physics, mineralogy and geology, and various kinds of manual training. In school and college alike the really effective teaching in all these subjects is that which is addressed to each individual pupil. All laboratory and machine-shop teaching has this character, no matter what the subject. The old fashioned method of teaching science by means of illustrated books and demonstrative lectures has been superseded from the kindergarten through the university by the laboratory method, in which each pupil, no matter whether he be three years old or twenty-three, works with his own hands and is taught to use his own senses. General explanations and directions may be given a class, but in the laboratory each individual's work must be separately supervised and criticised. There is nothing more individual than a laboratory note-book. In all laboratory and machine-shop work, the rates of progress of different pupils vary widely. Quicker eyes, defter hands, greater zeal, and better judgment will tell; and the teacher has every opportunity to discover and develop the peculiar capacity of each mind. All the artistic subjects, as well as all the scientific, require individual instruction. In drawing, painting, and modelling the instruction is of

necessity individualized. It is one of the best results of the introduction of manual training that each pupil must receive individual criticism and guidance. The instructor is compelled to deal with each pupil by himself, and to carry each forward at his own rate of speed. In short, manual training breaks up classroom routine, and introduces diversity of achievement in place of uniform attainment. I say that this principle applies all the way from the kindergarten to the professional school. It applies conspicuously in medical instruction; and within twenty-five years it has been there applied so successfully, that it is no exaggeration to say that within this period the whole method of teaching medicine has been revolutionized throughout the United States. It is universally recognized that it is impossible to teach medicine and surgery to large numbers of persons simultaneously by general descriptions, or by the use of diagrams, pictures, or lantern slides which many can see at once. Not that illustrated lectures and general demonstrations are wholly useless, but they hold only a subordinate place. The really important thing is individual personal instruction under circumstances which permit the student to see and touch for himself, and then to make his own record, and draw his own inferences. Finally, the highest type of university teaching—the so-called seminary or conference method—is emphatically individual instruction.

It is hard to say at what stage of education from the primary grade to the final university grade the individualization of instruction is most important. The truth is that the principle applies with equal force all along

the line. For the university president, the school superintendent, and the kindergartner alike it should be the steady aim, the central principle of educational policy; and whoever understands the principle and its applications at any one grade understands them for all grades.

II. Secondly, let me ask your attention to six essential constituents of all worthy education, constituents which in my opinion make part of the educational process from first to last, in every year and at every stage; and let me ask you particularly to consider which of these constituents belong to schools but not to colleges, or to colleges but not to schools.

The first constituent is the careful training of the organs of sense, through which we get incessant and infinitely diversified communications with the external world, including in that phrase the whole inanimate and animate creation with all human monuments and records. Through the gate of accurate observation come all kinds of knowledge and experience. The little child must learn to see with precision the forms of letters, to hear exactly the sounds of words and phrases, and by touch to discriminate between wet and dry, hot and cold, smooth and rough. The organs of sense are not for scientific uses chiefly; all ordinary knowledge for practical purposes comes through them, and language, too, with all which language implies and renders possible. Then comes practice in grouping and comparing different sensations or contacts, and in drawing inferences from such comparisons,—practice which is indispensable in every field of knowledge. Next comes training in making a record of the



observation, the comparison, or the grouping. This record may obviously be made either in the memory or in written form; but the practice in making accurate records there must be in all effective education. Fourthly comes training of the memory, or, in other words, practice in holding in the mind the records of observations, groupings, and comparisons. Fifthly comes training in the power of expression,—in clear, concise exposition, and in argument or the logical setting forth of a process of reasoning. This training in the logical development of a reasoning process is almost the consummation of education; but there is one other essential constituent, namely, the steady inculcation of those supreme ideals through which the human race is uplifted and ennobled—the ideas of beauty, honor, duty, and love. These six I believe to be essential constituents of education in the highest sense: we must learn to see straight and clear; to compare and infer; to make an accurate record; to remember; to express our thought with precision; and to hold fast lofty ideals. The processes I have described as separate often take place in the mind so rapidly that they, or some of them, seem to us simultaneous. Thus intelligent conversation involves observation, comparison, record, memory, and expression, all in a flash. But if these be constituents of education, is not education a continuous process of one nature from beginning to end? Are not these six constituents to be simultaneously and continuously developed from earliest childhood to maturity? The child of five years should begin to think clearly and justly, and he should begin to know what love and duty

mean; and the mature man of twenty-five should still be training his powers of observing, comparing, recording, and expressing. The aims and the fundamental methods at all stages of education should therefore be essentially the same; because the essential constituents of education are the same at all stages. The grammar-school pupil is trying to do the same kinds of things which the high-school pupil is trying to do, though of course with less developed powers. The high-school pupil has the same intellectual needs which the university student feels. The development of a mind may be compared with the development of a plant—it proceeds simultaneously and continuously through all its parts without break or convulsion. If at any stage there seems to be a sudden leafing or blooming, the suddenness is only apparent. Leaf and bloom had long been prepared,—both were enfolded in last year's bud. From first to last, it is the teacher's most important function to make the pupil think accurately and express his thoughts with precision and force, and in this respect the function of the primary-school teacher is not different in essence from that of the teacher of law, medicine, theology, or engineering.

III. A considerable change in the methods of education has been determined during the past twenty-five years by the general recognition of the principle that effective power in action is the true end of education, rather than the storing up of information, or the cultivation of faculties which are mainly receptive, discriminating, or critical. We are no longer content in either school or college with imparting a variety of useful and ornamental information, or with cultivating æsthetic

taste, or critical faculty in literature or art. We are not content with simply increasing our pupils' capacity for intellectual or sentimental enjoyment. All these good things we seek, to be sure; but they are no longer our main ends. The main object of education, nowadays, is to give the pupil the power of doing himself an endless variety of things which uneducated he could not do. An education which does not produce in the pupil the power of applying theory, of putting acquisitions into practice, and of personally using for productive ends his disciplined faculties is an education which has missed its main object. One humble illustration of the influence of this principle is the wide adoption of reading foreign languages at sight as a suitable test of fitness for admission to colleges. Another similar illustration is the use of question-papers in geometry containing a large proportion of problems which do not appear in explicit form in the ordinary manuals, but which can be answered or solved by making a simple application of the geometrical principles developed in those manuals. These are tests of acquired power. We think it reasonable to test a student of chemistry by giving him an unknown substance to analyze. Can he find out what it is, and prove his discovery correct? In other words, can he apply his information and knowledge of methods to a problem which is to him wholly unknown? Has he acquired not only information, but power? The whole field of natural science is available for that kind of training in power-getting which it is the main object of modern education to supply. It is not what the student of medicine has heard about, or seen others do, but

what he can do himself with his own eyes and hands, and with his own powers of comparing and judging, which will give him preëminence as a physician or surgeon. To give personal power in action under responsibility is the prime object of all medical education. This same principle, however, applies just as well in the primary school as in the professional school. Education should be power-getting all the time from the beginning to the end of its course. Its fundamental purpose is to produce a mental and moral fibre which can carry weight, bear strain, and endure the hardest kinds of labor.

IV. The next educational principle which I believe to apply to two thirds of the entire educational course between five and twenty-five years of age is the principle of the selection or election of studies. In the first three or four years of a child's education—say from five or six years of age to nine years—there are not so many possible subjects of equal value and necessity but that the child may pursue them all to some adequate extent; but by the ninth or tenth year of age more subjects will claim the child's attention than he will have time for, and thereupon arises the necessity for a selection of studies. As the child advances from the elementary school to the secondary school, and from the secondary school to the college, the number and variety of subjects from which to choose will rapidly increase, until in the department of arts and sciences of the university he will find that he cannot attempt to follow the twentieth part of the instruction offered him. Tables I and II in the Report of the Committee of Ten demonstrate abundantly the abso-

lute necessity for selection or election of studies in secondary schools, and even in the later years of the elementary course. Who shall make the selection is really the only practical question. The moment we adopt the maxim that no subject shall be attacked at all unless it is to be pursued far enough to get from it the training it is fit to supply, we make the election or selection of studies a necessity. This principle has now been adopted by all colleges and universities worthy of the name, and by the greater part of the leading high schools, academies, endowed schools, and private schools; but in these secondary institutions the principle is commonly applied rather to groups of subjects than to single subjects. The result is an imperfect application of the elective principle, but it is much better than any single uniform prescribed course. Finally, this principle has within a few years penetrated the grades, or the grammar schools, and has earned its way to a frank recognition at that stage of education. It is no objection to the principle, and it establishes no significant distinction between college experience and school experience, that there must obviously be limitations of diversity in studies during school life. School programmes should always contain fair representations of the four main divisions of knowledge—language, history, natural science, and mathematics; but this does not mean that every child up to fourteen must study the same things in the same proportions and to the same extent. On the contrary, representation of different kinds of knowledge and mental action having been secured, the utmost possible provision should be made for the different tastes, capacities, and

rates of progress of different children. Moreover, a main object in securing this representation of language, history, science, and mathematics in the earlier years of education is to give the teacher opportunity to discover each pupil's capacities and powers. There is, however, no ground of distinction between school teaching and university teaching in respect to these special limitations; for if we turn to the very last stage of education—professional training—we find there a serious limitation on the principle of election, a limitation imposed by the necessity of giving all young lawyers, physicians, ministers, teachers, engineers, biologists, or chemists the considerable quantity of strictly professional information and practice which every future member of these several professions absolutely needs. Again, for the same reason, scientific or technological schools must for the present use a group system rather than a free election of studies. They must adjust their present instruction to current professional needs. The freest field for the principle of selection or election of studies lies between the ages of thirteen and twenty-three—including five or six years of school life and all of college life. School men and college men alike should rejoice in this free field.

V. The next rule of educational reform which applies at every stage of the long course of education that civilized society provides relates to what is called discipline. Down ~~two~~ times quite within my memory the method of discipline both in school and college was extremely simple, for it relied chiefly, first, on a highly stimulated emulation, and secondly, on the fear of penalty. It had not been clearly perceived that an

immediate, incessant, and intense emulation does not tend to develop independent strength of will and character good in either solitude or society, and that fear of penalty should be the last resort in education. It is now an accepted doctrine that the discipline of childhood should not be so different from that of adolescence as to cause at any point of the way a full stop and a fresh start. A method of discipline which must be inevitably abandoned as the child grows up was not the most expedient method at the earlier age, for the reason that in education the development and training of motives should be consecutive and progressive, not broken and disjointed. Herein lies one of the objections to whipping, or other violence to the body, and to all methods which rely on the fear of pain or of artificial penalties or deprivations. There comes an age when these methods are no longer applicable. At eighteen there are no methods of discipline analogous to whipping, or to the deprivation of butter, sweetmeats, supper, or recreation, or to the imposition of verses to learn, or of pages of Latin or English to copy. If this sort of motive has been relied on up to eighteen, there will then be need of a whole new set of motives. For these reasons among others the judicious teacher, like the judicious parent, will not rely in childhood, if he can help it, on a set of motives which he knows must inevitably cease to operate long before the period of education is ended. By preference, permanent motives should be relied on from beginning to end of education, and this for the simple reason that the formation of habits is a great part of education, and in that formation of habits is inextricably involved the

play of those recurrent emotions, sentiments, and passions which lead to habitual volitions. Among the permanent motives which act all through life are prudence, caution, emulation, love of approbation—and particularly the approbation of persons respected or beloved,—shame, pride, self-respect, pleasure in discovery, activity, or achievement, delight in beauty, strength, grace, and grandeur, and the love of power and of possessions as giving power. Any of these motives may be over-developed, but in moderation they are all good, and they are available from infancy to old age.

From the primary school through the university the same motives should always be in play for the determination of the will and the regulation of conduct. Naturally they will grow stronger and stronger as the whole nature of the child expands and his habits become more and more firmly fixed, and for this reason, these same enduring motives should be continuously relied on.

Obviously, then, there is no difference between men who manage colleges and men who manage schools in relation to this important principle of educational reform. The methods of both should be identical; and the college man or the school man, who does not guide and govern through the reason of his pupils, through their natural interest in observation, experiment, comparison, and argument, and through the permanent motives which lead to right conduct, is not in sympathy with one of the most humane and hopeful educational reforms of the present generation. All teachers who deserve the name now recognize that self-control is the ultimate moral object of training in youth,—a self-control independent of



temporary artificial restraints, exclusions, or pressures, as also of the physical presence of a dominating person. To cultivate in the young this self-control should be the steady object of parents and teachers all the way from babyhood to full maturity.

VI. The next principle of educational construction to which I invite your attention is again one which applies throughout the length and breadth of education. It is the specialization of teaching. One might easily imagine that this principle had already been sufficiently applied in universities, and only needed to be applied hereafter in schools; but the fact is that the specialization of instruction is still going on in universities, and needs a much greater extension in American colleges and professional schools than it has yet received. Dr. Oliver Wendell Holmes was professor of anatomy and physiology in Harvard university down to 1871, and he really taught, in addition to these two immense subjects, portions of histology and pathology. He described himself as occupying, not a chair, but a settee. The professorship in Harvard university, which was successively occupied by George Ticknor, Henry Wadsworth Longfellow, and James Russell Lowell, is the Smith Professorship of the French and Spanish Languages and Literatures. In many American colleges we find to-day the same professor teaching logic, metaphysics, ethics, and political economy. Indeed, this was the case in Harvard college down to 1871, except that moral philosophy and Christian ethics were detached from the Alford Professorship, from and after 1860. The specialization of instruction is by no means completed in American colleges. It is

better advanced now in American secondary schools than it was in the American colleges eighty years ago, and it is just beginning to be developed in the American grammar schools, or grades, where it is generally spoken of as departmental organization. From the extension of this principle in American schools much is to be hoped within the next ten years, particularly for the teacher. To teach one subject to pupils at different stages, adapting the instruction to their different ages and capacities, watching their development, and leading them on with due regard to individual differences through four or five years of continuous progress, gives an inexhaustible interest to the teacher's function. To master one subject so as to be able to give both elementary and advanced instruction in it is for the teacher himself a deep source of intellectual enthusiasm and growth. Real scholarship becomes possible for him, and also a progressive intellectual expansion through life; for only progressive scholars can maintain for many years the mastery of even a single subject. Does it seem to you an unreasonable expectation that teachers in the grades, or grammar schools, should possess this mastery of single subjects? Careful observation seems to me to give assurance that exceptional teachers, both men and women, already possess this mastery, and that what remains to be done is to make the exceptions the rule. Towards effecting this great improvement, two important measures are the elevation of normal schools, and the creation or strengthening of educational departments in colleges and universities. At any rate, there can be no doubt that this specialization of instruction is a common need

from beginning to end of any national system of instruction, and that it is capable of adding indefinitely to the dignity, pleasure, and serviceableness of the teacher's life. Obviously this common need and aspiration should unite rather than divide the various grades of education, and should induce coöperation rather than cause dissension.

VII. There is a fundamental policy in regard to educational organization which should unite in its support all teachers, whether in schools or universities,—the policy, namely, that administrative officers in educational organizations should be experts, and not amateurs or emigrants from other professions, and that teachers should have large advisory functions in the administration of both schools and universities. The American colleges and universities are better organized in this respect than the American schools. More and more the heads of the institutions of higher education are men of experience in education itself, or in other administrative services. The presidencies of colleges are no longer filled, as a rule, by withdrawing from the ministry men well advanced in life, and without experience in teaching. The deans of the rather distinct schools which compose universities are usually men of experience in their several departments; and much power is exercised by the faculties of colleges and universities, these faculties being always bodies composed of the more permanent teachers. Moreover, in large colleges and universities all the teachers of a given subject are often organized into a body called a division or department, with a chairman chosen from among them as a judicious man and a

distinguished teacher. These, or similar, dispositions need to be adopted throughout the large urban school systems. Superintendents should be educational experts of proved capacity. Their assistants, whether called supervisors, inspectors, or assistant superintendents, should be organized as a council or faculty; and all the teachers of a single system should be associated together in such a way that by their representatives they can bring their opinions to bear on the superintendent and his council, or, in the last resort, on the committee or board which has the supreme control of the system. The teachers of the same subject should also be organized for purposes of mutual consultation and support; and at their head should be placed the best teacher of the subject in the whole system, that his influence may be felt throughout the system in the teaching of that subject. Moreover, the colleges and the schools need to be assimilated in respect to the tenure of office of teachers. After suitable probationary periods, the tenure of office for every teacher should be during good behavior and efficiency.

In general, the differences of organization between colleges on the one hand, and school systems on the other, are steadily growing slighter. The endowed schools and academies already have an organization which closely resembles that of the colleges, and all the recent changes in the mode of conducting urban school systems tend in the good direction I have described. There is in some quarters a disposition to dwell upon the size of public school systems as compared with the size of colleges and universities; but size is no measure of complexity. A university is

indefinitely more complex than the largest city school system, and the technical methods of university management are more various and intricate than the technical methods of any school system. Independently of all questions of size or mass, however, administrative reform is taking in both colleges and schools the same directions,—first, towards expert control under constitutional limitations; secondly, towards stable tenures of office; and thirdly, towards larger official influence for teachers.

Recalling now the main heads which have been treated,—namely, the individualization of instruction, the six essential constituents of education, power in action as the true end of education, the selection or election of studies, the appeal to permanent instead of temporary motives for controlling conduct, the specialization of teaching, and the right principles of educational organization—do we not see that the principles and methods of educational reform and construction have a common interest for all teachers, whether connected with colleges, secondary schools, or elementary schools, and shall we not agree that there is something unphilosophical in the attempt to prejudice teachers of whatever grade against the recommendations of the Committee of Ten and of the conferences that Committee organized, on the grounds that a small majority of the persons concerned in making them were connected with colleges, and that the opinions of college or university officers about school matters are of little value?

The plain fact is that there is community of interests and aims among teachers throughout all the grades into which the course of education is at present

artificially divided. The identity of the principles which govern reforms and improvements at every stage is strikingly illustrated by the simultaneousness and similarity of the advance now being everywhere made. Elementary schools, secondary schools, and colleges all feel similar impulses, and are all making similar modifications of their former methods. I can testify from personal observation that some of the administrative improvements lately made in universities resemble strikingly improvements made at the other extremity,—namely, in the kindergartens. It is very noticeable that even some of the mechanical or business changes made in school administration,—changes which were not supposed to have any bearing on the philosophy of education, or on new methods of teaching,—have facilitated true educational reform. Thus, the method of transporting children at public expense to central grammar schools in a rural town, or to high schools in large towns and cities, has distinctly facilitated the introduction of departmental and elective instruction. Again, the purchase and free issue of books for pupils by towns and cities has facilitated the use of good literature instead of readers—an important contribution towards improving the teaching of the native language and literature by increasing interest in them and love for them. In like manner, the institution of departmental libraries—that is, of small working collections of books on the same general subject, deposited in a place by themselves, and always accessible to students of that subject, has made possible great improvements in the instruction at Harvard college and many other colleges.

The Committee of Ten declare in their report "that it is impossible to make a satisfactory secondary school programme, limited to a period of four years, and founded on the present elementary school subjects and methods." In view of the rapid changes now going on in elementary school subjects and methods, this declaration amounts to saying that the Committee's work on the four secondary school programmes they recommend have only a temporary interest. Tables I, II, and III of their report have some permanent value: but table IV, which contains the four programmes called classical, Latin-scientific, modern languages, and English, and which cost the committee a great deal of labor, will surely be rendered useless by improvements in the elementary and secondary schools which may easily be accomplished within ten years. Some firm, lasting principles are embodied in table IV; but the programmes themselves are only temporary trestle-work.

If I were asked to mention the best part of the contribution which the Committee of Ten has made to the progress of American education, I should say that their general method of work was that best part—the method of investigation and discussion by subject of instruction, teachers and experts from all sorts of colleges and universities and from all sorts of schools, public, private, and endowed, taking part in both investigation and discussion. The Committee's method of work emphasizes the community of interest at all grades, and the fact that experience at every grade is valuable for suggestion and counsel at all other grades. To my thinking, the present artificial and arbitrary

distinctions between elementary schools and secondary schools, or between grammar schools and high schools, have no philosophical foundation, and are likely to be profoundly modified, if they do not altogether pass away. In the same sense, I believe that the formal distinction between college work and university work is likely to disappear, although the distinction between liberal education and technical or professional education, is sure to endure. I have never yet seen in any college or university a method of instruction which was too good for an elementary or a secondary school. The alert, inspiring, winning, commanding teacher is just the same rare and admirable person in school and in college. There is, to be sure, one important element of university work which schools and colleges cannot participate in,—namely, the element of original investigation; but although this element is of high importance, and qualifies, or flavors, a considerable part of university work, there remains in all large universities, and particularly in those which make much of professional training, an immense body of purely disciplinary work, all of which is, or should be, conducted on principles and by methods which apply throughout the whole course of education. When it is a question how best to teach a given subject, the chances are good that college or scientific school teachers of that subject can help school teachers, and that school teachers can help college teachers. Moreover, it is important that each should know what the other does. I have observed, too, that, even when neither party is ready to venture on affirmative counsel, each is pretty well prepared to tell the other what



not to do. Such negative counsel is often very useful.

On the whole, the greatest promise of usefulness which I see in the report of the Committee of Ten lies in its obvious tendency to promote coöperation among school and college teachers and all other persons intelligently interested in education, for the advancement of well-marked and comprehensive educational reforms.

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### **THE REPORT OF THE COMMITTEE OF TEN.**

BY FRANK A. HILL, LITT. D., SECRETARY OF THE MASSACHUSETTS BOARD OF EDUCATION.

Dr. Harris, the United States commissioner of education, is right in pronouncing the Report of the Committee of Ten "the most important educational document ever published in this country."

Its potency lies in the persuasiveness of its views and in the worth of the men who utter them.

If the report is not backed by the authority of the national government, it is backed by the authority of teachers of national reputation.

In the absence of central control in education we welcome central advice. Nay, central advice, as matters stand to-day, is distinctly better than central control.

I do not hesitate to urge that courses of study everywhere be framed in harmony with the Committee's recommendations. Whether it is possible to rise to these recommendations or not, trying to do so will bring the schools closer together in programmes and interests.

It will be a glad day when the great themes of study, their order, their time allotments, and their bounds are finally settled for our schools, so that the energies now absorbed in upsetting old programmes and setting up new ones shall expend themselves rather in securing

the best teaching power and the best equipment to carry out programmes no longer questioned.

I regard the Report as the mainstay—nay, the only hope—of the movement to secure reasonable seriousness and uniformity in the studies of our secondary schools and reasonable uniformity in the college admission requirements.

President Tucker told us last Monday evening that while in education we ought not to let go of the past, it was still necessary for each age to let something of that past go. Chaldee, for instance, is no longer taught at Dartmouth.

Now the high schools in their more popular and populous courses reflect a pronounced modern spirit; the college admission requirements have not yet so fully emerged as they ought from a medieval spirit. This difference in spirit has created an abyss between the vast majority of high school pupils and the colleges above them.

The Report would bridge this abyss,—not that large numbers are likely to pass over the bridge, for that is not to be expected, but that they may be able to do so at graduation, if they choose. On this point, I like the ring of the Report. It would not warp the high schools away from their main courses; it would recognize these courses rather, make them stronger, and have the colleges open their doors to pupils who complete them successfully. "A close articulation all along the upper line between the high schools and the colleges would be advantageous alike," the Report affirms, "for the schools, the colleges, and the country." In short, preparation for life should answer for college, if

one chooses finally to go to college; preparation for college should answer for life, if one chooses finally to stay away from college.

It should be carefully noted that, whereas, in the past, the high schools through their Greek courses have tried to adapt their instruction to the demands of the colleges, it is now proposed that the colleges shall adapt their admission requirements to the general instruction given in the high schools, that they shall no longer connect with the high school by the slender strand of a single course that but few choose, but by the cable rope of all their courses. The only requisites are that these courses shall be sufficiently broad and serious; and these sensible conditions should be met for the sake of the pupils whether they go to college or not. Indeed, if good solid work is needed from one pupil more than from another, it is from him who does not go beyond the high school.

While, therefore, I approve the Report, and believe it may be accepted as a safe guide in programme making, I wish to point out a few conditions, favorable and adverse, with which it may have to deal. They are Massachusetts conditions, indeed, but they may be taken as a type of high school conditions in general. They are not presented in a speculative way, but are gathered from a study of the two hundred and forty-seven high schools of the state.

Last spring the Board of Education requested all these high schools to send in their courses of study. With few exceptions they have done so. In those cases in which it was not possible to get courses of study, the reports of the school committees were

searched and other indirect ways adopted to get at the facts. In some cases, there were no printed programmes; the facts had to be furnished from memory or tradition. Eleven of these high schools are not strictly high schools at all; they are grammar schools in which a few of the more advanced pupils take some high school subjects. They have been classed with high schools in deference to their humble but laudable beginnings.

It is understood, of course, that a printed programme does not and cannot tell the full story about a school. Our Massachusetts programmes are not usually of that full and pretentious sort that leads one to suspect that more energy has been expended on the scheme than on the school itself. Most of them are modest and sufficiently reserved. A few are so meagre that it is almost guess work to tell what their schools are really trying to do.

If the figures I present are somewhat doubtful in their units, they may be trusted in their tens and hundreds to support such conclusions as may be drawn from them.

I. I find that two hundred and thirteen schools are practically on a basis of fifteen exercises a week. This number is subject to an increase of one, two, or three, when drawing, music, rhetorical exercises, or other single period subjects are added. In some of these schools the college pupils, in times of pressure, have twenty recitations a week, as in that year of the preparatory course immediately preceding the college preliminary examinations. Still, the backbone number for Massachusetts high schools is practically fifteen.

This number is a natural and convenient one, based, as it is, on five sessions a week, and three subjects a day.

In thirty schools only is the number of exercises placed at twenty, and this number generally includes music, drawing, or other single period subjects. Thus, the Boston high schools require twenty exercises, five of which are music, drawing, drill, and so on, for which outside preparation is not demanded.

Now the Report of the committee recommends twenty exercises per week, of which five are to be unprepared, and naïvely leaves it to local authorities, without suggestions from the committee, how to add music, drawing, and the rest to these twenty. Further, the report recommends double periods for laboratory work,—in itself, an excellent idea. For the Boston schools to retain their extras, while adopting the committee's recommendations, twenty-eight exercises a week would be needed.

I have not found a single school squarely on the committee's basis of twenty exercises exclusive of such extras as drawing, drill, and what not, although two or three schools report that they are struggling to get there.

Here, then, is the first significant fact that comes out of these courses of study. The Report calls for a third more exercises than the schools now provide for. It must not be forgotten that the demands of the separate conferences rose, in the aggregate, as high as thirty-eight exercises per week! This, from the standpoint of any single conference, was a preposterous number. In recommending twenty, the committee

practically halved this number. And yet the schools, to reach the committee's plan, must add a third to the recitation work of their pupils.

To increase the number of recitations without added provisions for taking care of them would be detrimental. Added provision means, of course, added expense. Even if the number of exercises should be increased to twenty and be properly cared for, it would still remain a question whether the average Massachusetts pupil would be likely to stand up under the added impositions. Planning is, indeed, ambitious, nimble, and unhampered, but poor doing—what a lame and halting thing it is, at the best!

The manual training schools of the country are the only ones that deal comfortably with so large a number of exercises as the committee propose.

In the Rindge manual training school at Cambridge, and the Mechanic Arts high school of Boston, the boys have twenty-five exercises a week, counting five exercises of two hours each as ten; and in many manual training schools, the Providence, for instance, the number rises even to thirty. The sessions of such schools are six hours long, however, and fifteen of the twenty-five or thirty exercises, being in the shops and at the drawing tables, require little or no outside study while they break and relieve the tedium of school. In this suggestion of lengthened sessions and of increased shop or laboratory methods to reduce the tedium is one solution of the difficulty we are considering.

II. One hundred and three of the two hundred and forty-seven schools offer, at least, three parallel courses of study, and some of them four. Not unfrequently,

by a system of electives, the number of possible courses is five or six or many more.

The three dominant courses are the college preparatory, in which Greek is the characteristic feature, a general English and classical course, in which Latin and French figure conspicuously, and an English course which may or may not contain a modern language.

Eighty-eight schools offer but two courses, forty-five but one course, while eleven deal with high school subjects in so scanty and disconnected a way that they cannot be said to offer courses at all.

Here, then, is a little more favorable aspect of things. Here are one hundred and ninety-one schools with two or more courses of study; that is, they profess to be able to teach four subjects, at least, per day; for with one course they teach three, and a second course would vary from the first by at least one subject. Such schools can, therefore, without serious added cost, adopt any one of the four courses described by the committee. Thus, they can offer twenty exercises as recommended. Bright, ambitious pupils would take the full course. Average pupils might, as now, confine themselves to fifteen exercises per week, in which case any one of the committee's four programmes would furnish material enough for, at least, two fifteen-exercise courses.

III. It is gratifying to note that one hundred and forty-six of the two hundred and forty-seven high schools offer college preparatory courses. In this statement I have called only those courses preparatory that contain Greek. In only two instances did I find any suggestion of an attempt to connect with the



colleges without Greek. I have reason to believe that not a few high schools are preparing pupils in desultory ways, without Greek, but printed preparatory courses without Greek are rare.

In a few of the larger schools the Greek classes are of respectable size, numbering ten to fifteen pupils and upwards, but through most of these one hundred and forty-six schools, Greek runs, so far as the numbers pursuing it are concerned, as a very slender rill, the great high school stream having no Greek whatever in it. It would be a distinct relief to the smaller high schools if there were no Greek in them at all,—if Greek, like Hebrew of the ancient languages or like Italian and Spanish of the modern, were relegated to the colleges. I am glad that Harvard admits without Greek, but sorry that she makes the route so trying. I am glad that Tufts and Williams admit without Greek, and that they have refrained from making it unduly difficult for candidates to gain admission without it. If the colleges generally would make it possible, for those who wish, to begin Greek after admission, it would be a great boon to the smaller high schools; it would tend to strengthen them in their more popular courses.

In these days when increased attention should be given to English and the sciences, two languages—Latin and either French or German—are all that the average high school ought to attempt. A college course for beginners in Greek who elect it would remove the most serious objection to dropping Greek from those high school courses where but few, at the most, are likely to take it.

It is a matter for strong satisfaction that the Report is so outspoken on the importance of recognizing the general non-Greek courses of our high schools, of strengthening those courses, and of admitting those who master them to the colleges above.

The gap that has existed all these years and still continues between the colleges and the great majority of high school graduates needs to be closed. Let the abyss be bridged somehow; then strengthen the bridge. Let it be, if you please, a temporary bridge for immediate traffic, while the permanent one is building.

IV. Of the two hundred and forty-seven high schools, one hundred and ninety-eight offer courses for four years. Many of these schools offer parallel courses for three years also, and three or four of them, parallel courses for five years. Twenty-nine schools offer courses for three years but for no longer time. The remaining twenty schools either offer courses for two years or less or their work is so meagre that they should not be thought of as having courses at all. In six schools that offer courses for four years and a few more that offer courses for three years, the first year is devoted to grammar school subjects.

It will be seen, therefore, that the Massachusetts high schools, so far as their printed courses tell the story, aim to do prolonged and serious work, to respect the various wants of their respective localities, and to connect, so far as they can, with the various institutions above them.

Many of the high schools are now remodelling their courses. The Latin-Scientific course of the committee is the one that comes the nearest to existing schemes

in most of our high schools. It is the one to which they can most readily adapt themselves. It is the one most in favor with the committee unless we except their classical course. If it cannot be realized in full, it certainly can be in part.

It is the most promising course the wisdom of our scholars has ever devised to secure a certain uniformity, consistency, and solidity in high school work. It is a measure—the first conspicuous one in our educational history that has proposed for itself this aim—well calculated to close a deplorable gap, to banish a deplorable anomaly, in secondary education.

I do not quite see how it is possible to rise at present to the twenty exercises per week, to double the laboratory periods, and to find time for important extras, but if Massachusetts high schools fail to do as much, all high schools will fail as well, and the colleges will need to accept the situation. In spite of this doubt, I regard the non-Greek courses of the Committee of Ten, the Latin-Scientific one in particular, as full of promise for the future of our high schools.

I renew the advice, therefore, which I gave at the outset that, in remodelling our high school courses, superintendents, committees, and principals shall keep as close as possible to the recommendations of the Committee of Ten, following them, so far as practicable, in subjects, in order, and in time allotments, so as to give the exceptional pupil the full benefit of a good "twenty-exercise-plus" programme, even though the great majority are content with three-fourths of it only.

In all this advocacy of a non-Greek preparatory course, whose vertebral column shall be the existing

general course in the great majority of our high schools, modified and reinforced somewhat as recommended, and strengthened, too, in the interests of those large numbers who will never go to college,—in all this, there is no controversy whatever with the great, strongly-intrenched, time-honored classical schools. They are doing admirable service and will continue to thrive, for Greece is mighty still.

I simply claim that in the able report of the committee, through which runs the spirit of the nineteenth century in generous rivalry with that of the eighteenth, I see bright gleams of hope for that great part of our high school system whose distinctively modern spirit has thus far estranged it from the colleges above, to its own detriment and theirs as well.

Let us make the new routes equal in efficiency to the venerable Hellenic way. Let us do this not so much for those who change their minds late and wish to go higher, as for that larger number who need strong and well-taught courses because they are not going higher.

V. A few words as to the relations of the normal schools to the committee's programmes. For reasons I will not rehearse, these schools have admitted, in the past, pupils in all stages of preparation and in all grades of experience and maturity,—mother and daughter even having worked side by side in the same class. These pupils have come from the high schools, from grammar and ungraded schools, from the colleges, and from the ranks of teachers. Conditions that are now slowly vanishing have made this course imperative. The teaching force of the state has gained something from

this free and easy relation to all sorts of schools. The normal schools have done well for institutions so handicapped, but they have had to make a sacrifice and pay a price for their indulgence. They have been left out of the discussions that concern the relations of the high schools to institutions above. The influence of the college has been the great theme of these discussions, not that of the normal school. Perhaps the situation can be comprehended from a supposition. Let Harvard university admit, hereafter, pupils directly from the grammar schools as well as from the high schools. What would be the result? Well, two things, certainly. In the first place, Harvard university would throw away her influence upon the high schools, and, secondly, paralysis would settle down upon high school efforts to fit for the university. I have no doubt the bright grammar school graduate furnishes better material out of which to make a good teacher than the dull high school graduate ; but I affirm, with all the tenacity with which one can insist on a truism, that the grammar school graduate would be vastly better off herself, and vastly more precious to the public, for a good four years' high school course. What the dull high school graduate would be without her high school training I hardly dare to think.

The normal schools are ready for a change. They propose to have a hand hereafter with the colleges in discussing secondary programmes. They are to be left out no longer.

It is well known that Massachusetts has just decided to organize four new normal schools. This decision doubtless illustrates the principle that in union there is

strength; but it is a tribute as well to the normal school idea. Indeed, we have had in Massachusetts the past winter the apotheosis of the normal school.

It is not so well known that in 1895, and thereafter, candidates for admission to the normal schools must be examined, like candidates for admission to college, in high school subjects, and that, to be eligible to examination, they must be graduates of high schools or must have received an equivalent education. The normal schools will henceforth insist on what has heretofore been strongly recommended by them, namely, a better preparation for admission. With this new policy the normal schools will take their place for the first time where they belong, above the high schools and side by side with the colleges, as a power to influence the schools below. This power should be exerted to tone up not simply the candidates for admission, but the high schools as well.

The high school is the people's college. It has a threefold duty: it should give its pupils a good training for their own sakes; it should furnish good material for the normal schools as well as for the colleges; and it should inspire and lift up the schools below. Therefore it should be held up itself. The high schools of Massachusetts prize the tonic influences of the colleges; they will welcome tonic influences from the normal schools.

Fitting pupils for the normal school should be as serious a matter as fitting them for college; it should cost the pupil something, it should cost the school something. Things that cost are more likely to be prized because of such cost.

Now the Latin-Scientific course of the Committee of Ten is just the course that normal school candidates need. If the colleges and the normal schools will unite with that general public whose pupils have neither normal school nor college aims, to strengthen this course at every point with adequate teaching force, good equipment, and skilful instruction, the movement will be full of promise for the future of our normal schools, and therefore for the future of our public schools in general.

#### DISCUSSION.

In discussing the "Report of the Committee of Ten," A. E. WINSHIP, editor of the *Journal of Education*, said :

It is not a question as to whether or not the report of the Committee of Ten is good in a miscellaneous way, but to what extent does it solve any of the vital problems of secondary education, or point the way to their solution? There is undue sensitiveness over any tendency to criticise the report, and not a few of its friends regard it as a sacred document, not to be touched by profane hands. The sincere criticisms that have been made have been met in an excited way with the general accusation that the critics are actuated by prejudice because college men have assumed to treat of elementary school matters, and that this has been based upon "hatred of college men and animosity to the chairman of the committee." So far as I have raised any questions regarding the sanctity of the document, and so far as I know of the other

criticisms, there is no foundation for this charge. Every post of honor in this programme has been given to a New England college president.

There are genuine doubts as to the infallibility of the report, and some of us regard it as the most disappointing educational document that has been issued with promise of usefulness, in many a day. Never was such an opportunity given for great educational service. An appropriation of \$2,500 was made for the expenses of ten men who should, as a whole or through some of their number, make an expert study of certain special phases of secondary education. This was a reasonable amount, but they immediately magnified themselves into one hundred, and used all the appropriation, and more, in traveling expenses to a single brief conference. It makes a vast difference whether there is \$250 for each of ten, or \$25 for each of one hundred. What was expected to be an expert scientific study of a few definite problems has degenerated into an unscientific and unphilosophical expression of opinion upon almost every conceivable educational question, from the kindergarten to the university.

President Eliot says in his paper this evening: "To master one subject is the ideal of the progressive scholar," and adds: "Is it too much to ask for the mastery of one subject?" This is the precise ground of the criticism. Ten men were expected, in accordance with the ideal of the progressive scholar, to master some one or more phases of secondary education, or at the most the *one subject* of secondary education; and it may not be irreverent to ask in the language of President Eliot, "*Was it too much to ask*



*for the mastery of one subject?"* Was it not a dissipation of funds and a defiance of the "ideal of the progressive scholar" when the ten became a hundred, and the one subject infinity?

The progressive scholar has another ideal which is really involved in that stated by the chairman of the Committee of Ten. It is the scientific, critical examination of all facts bearing upon a subject, and the reaching of conclusions through the facts. With the progressive scholar *opinions are valueless* except as they are the fearless voice of every obtainable fact. This would-be-sacred report is nothing but opinions unsupported by any scientifically obtained facts. Its highest scholastic ambition was opinions drawn from empirical views of conditions.

If there is any one thing that has been argued indefinitely for many years it is the value of Greek as a disciplinary study, until its claims can be recited backwards by any attendant upon educational gatherings or reader of professional literature; while there are a multitude of earnest men and women who would like to know whether there is any disciplinary value in the study of electricity, engineering, or in the laboratory methods, sciences, history, and psychology, and if so, how much, and of what quality. The report strongly ignores all progressive ideas in scholarship, and in life, and simply says, that if anybody thinks that any of these progressive subjects or methods have any value they might try them in a Saturday annex, as it were.

In view of the ideal in progressive scholarship, and of the progress of the arts and sciences, it is difficult not to view the famous report as simply ridiculous.

Have you had occasion to call in eminent physicians to consult with your family doctor, if so you can appreciate the solemnity with which they sit with closed doors and then announce that the patient is seriously ill, and will probably die, but the family physician has understood the case perfectly, and the treatment has been just right, but they have ventured to suggest that it might be a trifle more heroic. This is the part played by this report so far as the secondary school is concerned. It announces that Greek, Latin, etc., are all right, but suggests that the administration be a trifle more heroic, and adds that for a few a little Saturday gruel might be well.

To change the figure, the Committee of Ten was placed upon the engine with instructions to take the secondary schools along the track with a larger freight at a higher rate of speed; but they seem to have mistaken the instruction to have shut down the brakes, taking their station on the rear platform with the warning red lantern to prevent being run over by progressive ideas. Not being wholly satisfied that this will protect them, they built a short Saturday side track upon which to switch any progressive idea that may threaten them.

It is devoutly to be hoped that we may sometime have a committee of *ten* expert, scientific specialists who will appreciate the "ideal of the progressive scholar," and master some one subject of secondary education or one phase thereof. In the language of President Eliot, "Is it too much to ask for the mastery of one subject?"

## XI.

### **THE EVERY-DAY USES OF HERBERTIANISM.**

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According to Herbart, philosophy is the elaboration of general concepts or notions. Owing to a difficulty in distinguishing between a particular or concrete concept, or notion, and a general concept, or notion, a misunderstanding sometimes arises. The particular concept corresponds to the concrete idea, or image of a material object, while the general concept or notion contains the characteristics common to a class of particular concrete concepts and no other characteristic. The concrete or particular concept implies the consideration of individual things, while the general notion involves the consideration of relations among things.

Philosophy, the science of the action and interaction of concepts upon one another, deals almost exclusively with relations. For this reason it is an abstract science, and as such is calculated to employ the highest powers of the thinker.

The character of the elaboration of general concepts is to be determined by the similarities and differences existing among those concepts. The different divisions of philosophy arise from the different kinds of elaboration.

The first result of attention to general concepts is that they become clear and distinct. Concepts are clear when they can be readily distinguished one from the other. A concept is distinct when its peculiar characteristics can be readily distinguished one from the other.

Distinct concepts when related to one another may assume the power of judgments. A combination of judgments gives rise to the syllogism. The syllogism belongs to the department of logic. Logic then, is the first division of philosophy.

In the discussion of his system of philosophy, Herbart is very careful to emphasize the importance of logic in preparing the way for more involved philosophical thinking. A study of logic is calculated to develop power to discriminate between right and wrong thinking, and for this reason is an excellent preparation for the careful and exact thinking so indispensable to a profitable consideration of psychology.

We have said that the office of logic is to make general concepts clear and distinct. The apprehension of the world and of ourselves, however, implies the consideration of many general concepts, which, the more distinct they are made, the less they admit of combination in thinking. Rather, they cause division in all the judgments into which they enter. In many departments of science we seek to avoid those concepts. In philosophy, however, this avoidance is for the most part impossible. Hence, there remains to philosophy the heavy task of so working upon such concepts, and so modifying or changing them, that each is made necessary according to its peculiar character. Through

this change something new is added, by the help of which the previous difficulty disappears. This new part may be regarded as an extension or supplement of the old. The extending or supplementing of old general concepts gives rise to the second kind of elaboration of general concepts which, in turn, gives rise to the second division of philosophy, viz.: the science of metaphysics.

As its name implies, the science of metaphysics is connected with physics. Through physics in general, which deals with material or concrete conditions, the psychical, which deals with immaterial or abstract conditions, is made comprehensible.

From general metaphysics, formerly known as ontology, has arisen our applied metaphysics, which admits of three divisions, viz.: psychology, natural philosophy, and natural theology, or the science of religion.

Connected with the concepts discussed above, whose different kinds of elaboration give rise to the sciences of logic and metaphysics, is a class of general concepts, unlike those that give rise to metaphysics. Instead of causing division, and thus making change necessary, as they become clear and distinct, they bring about an addition or composition which consists in a judgment of approval or disapproval. This indicates a third kind of elaboration of general concepts, hence a third division of philosophy known as the science of aesthetics.

Upon the whole, the only connection between this science and the knowledge of the subject presented, is that the latter (*i. e.*, the subject presented) furnishes

concepts that awaken sentiments of approval or disapproval without any regard to their reality.

*Note.*—*Art in general deals with appearance rather than with reality.*

In its practical application, however, æsthetics is transformed into a series of technical subjects which may be called practical sciences, because they guarantee that the subject shall be treated in such a way as to give rise to approval rather than to disapproval.

Those sciences are,

Architecture.

Landscape gardening.

Sculpture.

Painting.

Classical music.

Popular music.

Classic poetry.

Romantic poetry.

*Note.*—The first class demands the knowledge of the critic in order for the individual to gain what those sciences are capable of giving. The second class, however, appeals directly to the feeling, through the senses, and arouses a sentiment of approval or disapproval without any special knowledge of the subject. There is no doubt, however, that a critical knowledge greatly adds to the enjoyment of the observer. Without it his interest can never be more than empirical, while his mental development cannot be secured.

Among those practical sciences arising from the fundamental principle of æsthetics—viz., approval or disapproval,—is one of which man is himself the subject. This is the science of ethics, which, in so far as it treats of human manifestations in acts of omission and commission, gives rise to the theory of duty.

Ethics as a means of determining rights and duties

has a well-defined place in the science of pedagogy, which, with the science of politics, forms a by no means unimportant division of philosophy, the elaboration of which involves the application of the principles underlying the sciences mentioned above.

Pedagogy has for its aim the highest moral development of the human being. The securing of this aim demands a knowledge of the principles of psychology and of ethics.

The aim of politics is identical with that of pedagogy, with this difference: while pedagogy has in view the highest moral development of the individual, politics has in view the highest moral development of society as an organism, or of the individual as a member of the social body.

Herbart believed that the science of psychology must remain inadequate and incomplete so long as it considers merely the psychical phenomena of the individual. Society, wherever organized, is subject to psychical laws peculiar to itself. The individual and his relations to the social body corresponds to the concept in its relations to the psychical organism of which it is a member. Upon this assumption, Herbart formulated a statics and mechanics of the state in a way corresponding to the statics and mechanics of the psychical life.

Herbart regarded psychology and natural philosophy as the two branches of knowledge which repay metaphysical investigation. He places psychology first of the two, because, as he says, the first and nearest object of study is the actual occurrence in the soul, of which only the appearance is to be perceived in the

external world. All our simple presentations [sensations] are actual recurrences or self-preservations in the soul.

In natural science—*i. e.*, natural philosophy,—however, nothing is free from the idea of movement, which latter is also, for the most part, merely an appearance to the spectator. The determinations of these apparent movements are, for the most part, only remote results of the inner conditions of simple existence.

Psychology and natural philosophy have this in common, that each contains an analytic part and a synthetic part which are not separated from one another. Both of these sciences stand between general metaphysics and experience. From metaphysics comes the synthetic, from experience the analytic part.

The office of psychology is to make the inner world comprehensible, while natural philosophy is to do the same for the outer world.

Herbart spends but little time in discussing the nature of the soul. It is a simple indivisible existence of which concepts are the self-preservations. The task of psychological investigation is to trace the course of those concepts in their action and interaction upon one another. This action, and interaction, involves three chief psychical processes which include all others. The three chief psychical processes are sense-perception, reproduction, and apperception.

The primary psychical products are the sensation, the individual or concrete concept, and the general concept or notion.

Primarily those concepts are the result of sense-perception.



The sensation may be regarded as the first psychical reaction to nerve-excitation, and does not imply a significant degree of psychical activity.

The individual or concrete concept is a combination of sensations, and is the result of the exercise of sense-perception. It implies the referring of the sensation to its cause in the external world. It may be regarded as a sign of the external object, but is in no way a picture or counterpart of it. Hence the difficulty of using the term *idea* to express what we mean by "concrete concept," as *idea* signifies an image; which the term concept cannot do.

The general concept [notion] has no cause, counterpart, nor symbol in the external world. Its formation is the result of the exercise of apperception. The word, which is its name, is the only perceptible sign of its existence. In this connection we may come to understand the great importance of language. Without it there can be no generalization, without which latter there can be no consecutive action.

The exercise of reproduction in itself secures no new product. It serves merely as a means to bring old concepts [past experiences] into consciousness, where they may be used in forming new combinations through the process of apperception.

The process of apperception, which in a way is the be-all and end-all of the Herbartian psychology, implies the existence of similarity (and consequently of difference) among concepts.

Concepts that are similar become blended or fused into one another, while those that are dissimilar oppose or resist one another. The blending or fusing of sim-

ilar concepts is effected through the process of apperception.

The result of the first act of apperception is recognition, which is the first indication of intelligence or understanding.

The result of a more advanced act of apperception is interpretation, in which a new experience [concept] is understood by reason of its similarity to former experiences. The degree of psychical power implied in interpretation is much greater than that implied in recognition.

The result of the most advanced act of apperception is creation, or creative power, as evidence in the originality of theories of invention and discovery.

Apperception provides not only for the apprehension of new through old experiences, but also for the apprehension of the unknown whether old or new. It thus implies the possibility of apperceiving again that which has been already apperceived, and indicates the possibility of the intelligence going beyond the recognition of the concrete, and of rising to the apprehension of the abstract, and even to the apprehension of an abstraction of an abstraction thus making possible attainment to a region of pure thought, into which concrete experience may not enter.

The opposition or resistance exerted against one another by concepts that are dissimilar is an expression of force which evidences the tendency of the concept to preserve itself by removing from consciousness everything foreign to itself.

The self-preservation of the concept is its presence in consciousness. Absence from consciousness is the

same as non-existence. When in consciousness its tendency is to absorb or appropriate everything similar to itself, thereby becoming stronger and better able to maintain its position, and to remove everything unlike itself. We have no means of knowing Herbart's attitude toward the theory of evolution in its general phases, but his theory of the striving of concepts against a latent condition, together with the result of victory to the strongest, is an excellent illustration of the "struggle for existence," and of the "survival of the fittest."

The secondary or higher psychical states are, in effect, the effort or striving of concepts to present themselves in consciousness. This effort or striving varies in character under different conditions, and so gives rise to various states. They imply an inner perception (which is, perhaps, to be distinguished from apperception) of the relations among the primary psychical products.

The first direct result of the perception of the action of concepts upon one another, is feeling, either pleasant or unpleasant. Feeling, in its turn, gives rise to attention, expectation, interest, emotion, desire, passion, will.

Unlike most psychologists, Herbart makes a careful distinction between feeling and emotion; between emotion and desire; as well as between emotion and passion.

Those states are all, however, equally dependent upon feeling, and may each be regarded as the concept transformed into effort to present itself in consciousness.

The will is, in a way, the result of desire, or rather of desires, combined with a sense of the possibility of attainment.

Freedom of the will, *as will*, is denied, but freedom of the individual is a growth which is to be achieved as the individual develops insight, reflection, and power to do. Freedom seems to be a relative rather than an absolute attribute of the individual. Probably no one is as free as he believes himself to be. "Let any man who thinketh he standeth, take heed lest he fall."

In this connection, brief mention may be made of the Ego, which is an example of the result of the apperception of an apperception before mentioned. The Ego is a concept which, while it presents the form of the totality of all the other concepts, is an actual existence, which, resulting from ever-rising acts of apperception, takes cognizance of everything below it, and at the same time relates everything to itself.

It will be observed that Herbart's system of psychology differs widely from that of the philosophers who preceded him. He rejects the doctrine of inherent powers or talents. He refutes Aristotle's assumption of inborn faculties, while he treats the theory of higher and lower inherent capabilities as mere psychological myths.

His departure from the scholasticism of Schelling and Hegel, the formalism of Kant, and the materialism of the Empiricists is to be found in the principle that concepts are the elements of the united neutral life. They are the effective forces of the soul, and in their

action and reaction give rise to the capacities which he refuses to ascribe to "faculties."

In a so-called "statics and mechanics" of the mind, Herbart has subjected the movement of concepts to mathematical calculations, and has thus presented the principal psychical laws with scientific exactness.

To the mere reader of psychology, the Herbartian theories may at first appear more peculiar than rational, but the careful student, who seeks for illustration and proof, will probably find no psychological theories which are so well calculated to stand the test of actual experience.

Herbart believed a knowledge of psychology to be of the utmost importance to the teacher. He attributed the many gaps and mistakes in pedagogical practice to ignorance of psychological law. Without systematic instruction in accordance with the principles of psychology, mental activity must be irregular and indefinite, while the products of such activity must be practically worthless.

An adequate system of pedagogy demands a knowledge of human activity, not only as evidenced in the adult mind, but especially as manifested in the child. Pedagogy makes no provision for the adult. The child is its especial care, hence the child is the teacher's especial object of study.

The study of the adult mind is important, however, as from it the teacher may learn what he wishes the child to become, and may determine what to do as well as what to leave undone.

Virtue (the morality of the individual) is the aim

towards which all pedagogical activity must be directed, and any instruction which loses sight of this aim is worse than useless. With this aim in view, a symmetrical, all-sided development can and must be secured. "No human power should be crippled. Under the mild protection of the moral law, all the powers of man will flourish."

The original ethical ideas, which lie at the foundation of morality, are :

1. Inner freedom.
2. Perfection.
3. Benevolence (Love).
4. Right.
5. Justice.

These ideas combined constitute the idea of virtue, which is the absolute aim of the Herbartian pedagogy.

Based upon the five original ethical ideas, are the five derived ideas, which, combined, constitute the relative aim of pedagogy, *i. e.*, the social aim.

The derived ideas are :

1. Society as an organism.
2. System of culture.
3. System of administration.
4. Law-abiding society.
5. System of wages.

These ideas are derived from the original ethical ideas in the order indicated, viz.: the first of the second group comes from the first of the first group, etc.

The five original ethical ideas are absolutely necessary to the working out of a system of pedagogy, while the five derived ideas are no less necessary to the working out of a system of politics.

The Herbartian pedagogy having determined the aim of education, next considers the means for securing this aim. The means are government (training), discipline, and instruction.

The aim of government is chiefly to secure habits of order, and of attention to desirable objects of investigation and thought.

The aim of discipline is two-fold : First, the suppression of the natural unboundedness of the child ; second, the development of power of reflection, and of an appreciation of the relation between cause and effect.

Instruction is the intentional work of the teacher, and does not imply putting the child in possession of special information, or technical skill, so much as it implies the training of the child in the observation of relations, and so in the power to recognize underlying principles.

In order that the desired results of instruction may be secured, interest must be aroused. Herbart says, "Interest the child in order that you may be able to instruct him."

Interest is a psychical product, and has its place in a course in psychology. It is also one of the strongest pedagogical factors. A many-sided interest developed in the child will enable the future man to make himself at home in any society, and in any country. It will enable him to adapt himself to any change of circumstances, and will make him ready in resources that will be equal to any emergency.

Many-sidedness, or all-sidedness, of character is to be secured through the agency of two factors ; experi-

ence with things, and intercourse with people. Two groups of interests are to be traced to those two factors :

I. *Interests of knowledge.*

- a. Empirical interest.
- b. Speculative interest.
- c. Aesthetic interest.

II. *Interests of participation.*

- a. Sympathetic interest.
- b. Social interest.
- c. Religious interest.

Another subject of great importance in the Herbartian system of pedagogy is method, which is carefully distinguished from the technique of instruction.

Herbart says, "Method can only mean the course of instruction in regard to the direction in which the mental activity moves, either forward or backward, from the parts to the whole, or from the whole to the parts. The difference in direction gives rise to two different methods, viz., the synthetic and the analytic.

All the so-called methods must be forms of analysis or synthesis, as the human mind is capable of no other action than that of combining or separating.

According to this view the favorite cry of our educational journals, "Every man must have his own method," is not true. By the law of nature all men are restricted to the same manner of mental activity.

Another important thought in this connection is that the method belongs to the learner, and hence is beyond the power of the teacher except as he adapts his instruction to the direction in which the mental activity of the child needs to move. The teacher as a student, however, works exactly as his pupil works.



The technique of instruction is defined by Herbart as the "form of instruction in regard to the presentation and fixing of knowledge." Here the originality of the teacher is not limited. "Every man may have his own technique by means of which he removes hindrances and substitutes helps to the attention of the pupil."

The Herbartian pedagogy also considers the "four steps of instruction." This subject is of especial importance to the teacher. The four steps are :

1. Absorption (to secure clearness).
2. Association (to secure comparison).
3. System (to secure classification and generalization).
4. Philosophical method (to secure application of principles in independent work by the pupil).

This brief outline of the Herbartian system of pedagogy may be closed by a brief reference to the statics, propaedeutics, and concentration of instruction.

Those subjects are so closely connected that they can not be discussed separately. The statics of instruction considers the arrangement of the subjects that stand side by side on the daily school program, and so arranges them that one shall be a support to the other.

The propaedeutics of instruction considers the succession of subjects with a view to making the simple a basis for the more difficult.

Concentration has in view the saving of time and energy, securing a knowledge of one or more subjects through the study of others. For example, a science subject may form the basis for work in reading, writing,

composition, etc., the former furnishing matter for thought, while knowledge of the other subjects is secured by the constant use of them in expressing thought.

When I received the invitation to speak before the American Institute of Instruction concerning the "Every Day Uses of the Herbartian Philosophy," I was reminded of an old saying that, "Philosophy is a very good thing by which to live, though not a very good thing by which to get a living." The seeking for the every day uses of philosophy indicates an inclination, on the part of this society, to master the art of living as well as that of getting a living. This latter problem has seemed hitherto to occupy the attention of the American people, somewhat to the exclusion of everything not directly connected therewith. Just at present, too, uncertainty regarding the material means of existence seems naturally to be uppermost in men's minds. Perhaps a period of adversity affords a favorable opportunity for developing the conviction that "Man shall not live by bread alone."

Possibly the almost instinctive objection to philosophy and to philosophers which so many people evince has its origin in the apparently unpractical nature of the subject.

Up to the time of Herbart the function of philosophy seemed to be to interpret existing conditions, not to prescribe remedies for crying evils. Modern philosophy has the latter as well as the former work to do.

The Herbartian philosophy seems admirably adapted to the two purposes mentioned.

Based upon a foundation as wide as universal experience, it interprets the present by means of the past, and prophesies a future dependent upon the development of the individual and of society.

It presents but few theories concerning the origin or the end of man, but strives to determine his nature and possibilities, and to put him in a condition to make the most of himself by the exercise of that activity that is inherent within him.

Education is the abiding outcome of the Herbartian philosophy. It is not, however, an education that either begins or ends in the schoolroom. Rather it is that education which results from experience and self-directed effort. While it does not promise the attainment of perfection, it presupposes the possibility of constantly becoming better.

It is an education which develops power to distinguish the beautiful from the ugly, the morally good from the morally evil, the true from the false, the right from the wrong.

The Herbartian philosophy is practical, in that it demands from the individual, at every moment of his life, the best effort of which he is capable. It tests him not by that which he believes or understands, but by that which he achieves. It declares that "whatever strength a man has in him will lie written in the work that he does."

The Herbartian philosophy affords support to the family, and makes this institution an important factor in human development.

It offers to the school that insight which will enable it to make the most of all the powers of the child, and

to bring them up to their highest possibilities. It insists upon that accuracy in thinking which alone can form the foundation of a strong, reliable character. Herbart says, "Inaccuracy trains only dreamers and fools."

To the poet and the painter it grants an understanding of abstract universal truth, and shows them how to make this truth perceptible through concrete particulars.

To the philosophical thinker it reveals the unity of art and nature, and guides him to a satisfactory interpretation of the world as it is, and an understanding of it as it may be.

For every day living it affords insight into motives of human action that inclines one to sympathy and forbearance with human weakness, and develops power to enjoy and to act, always to some purpose.

### DISCUSSION.

The discussion of Miss Smith's paper was opened by JOHN T. PRINCE, Ph. D., agent of the Massachusetts Board of Education. He spoke as follows :

Whatever our judgment may be of the Herbartian philosophy as a whole or as to certain phases of it, we must acknowledge that it helpfully meets questions of administrative reform at several points, and that in its application to the work of the school-room it is eminently practical. The fact alone that it has been a source of inspiration to many of our best teachers, ought to entitle it to our respect, and to render it worthy of careful inquiry.

Its emphasis upon moral training as the chief end of education has helped to check the utilitarian tendencies of the past and has brought to the study of ethics contributions of the highest value, first in exposing the fallacies and wrongs of artificial incentives and secondly in showing the value of intellectual instruction as an essential means of a cultivation of the will. It is not uncommon to find individuals who regard moral training as the end of education—indeed we may believe that practically all teachers or educators will agree to that proposition—but here is a philosophy which is committed to it as a principle, and which develops a system of psychology, ethics, and pedagogics pointing to it in all their details. No other philosophy or system of pedagogics so far as I know can make any such claim. The teachings of Herbart and his followers concerning *interest* seem to be at variance with our common notions and practice in placing it as an end and not merely as a means to an end. But by a proper definition of terms I believe there is a common ground upon which all may stand. For example, Professor Scott said yesterday, in his excellent paper, that interest in nature study must be awakened not as an end but as a means to an end. Previously he had said that the animal or plant was to be studied not so much for the sake of information as for the awakening of a love of nature—and this, as I understand it, is precisely Herbart's idea of one form of interest which should be awakened—the direct interest. "Learning," he says, "shall pass away, but the interest shall remain throughout the whole of life." Inspiration may be the better English word for the idea

that Herbart has in mind. Inspiration in learning far transcends in importance the act of learning, but the act of learning is no less useful and necessary.

The average American is likely to look upon the teachings of Herbart concerning the historical-culture steps or historical epochs as the least practical part of his pedagogics. But even here it must be confessed are elements of wise suggestiveness. To the efforts of many disciples of Herbart along this line is due much of the practical work that has been done and that is being done in the unification and correlation of studies—a subject of vast importance in view of the rapidly increasing number of subjects required to be taught in the elementary schools and of the extension of the departmental plan to the grammar and primary grades. Against the wholesale adoption of this plan comes with great force the arguments which Herbart uses in favor of the concentration of studies and of preserving the child's individuality. The study of the child should not be left to the psychologist alone, but it should be regarded as a paramount necessity for every teacher. The demand of Herbart, which is alike the demand of reason, that the teacher should "leave the individuality of the child untouched so far as possible," implies that that individuality must be known, and it is a question for educators to decide whether it can be known so well if the child's time is distributed among several teachers as if it were given to one teacher alone. Few pupils under a single teacher would seem to meet Herbart's demands on this point.

But the everyday uses of Herbartianism are most apparent in its teachings concerning the "formal steps

of instruction" or methods of hearing the recitation. Every good teacher whether he knows anything of the views of Herbart or not, on this point follows in a general way his plan of procedure, first, in leading the pupils to disclose what they know of the subject to be taught so as to prepare the way for the acquisition of new knowledge or the awakening of new ideas. This stage of instruction is called the stage of preparation. Here is emphasized the idea of review, extending the review so as to include all that the pupils know of a given subject either from experience or previous instruction.

Then follows naturally the presentation of new facts of information or knowledge. This is done either by presenting the object of thought, or by showing a representation of the object, or by making the child familiar with the new subject by talking about it.

The third stage consists of association and comparison of ideas both new and old, and the fourth, if pupils are ready for it, the forming of general truths by abstraction. In these stages there are produced by apperception new ideas—an interpretation and renewal of former perceptions. This idea of apperception as presented by Herbart may not be entirely new to all—and yet his elaboration of the subject in the light of other features of his philosophy must, if understood, be productive of great good, first in showing how new knowledge is acquired, and secondly in inducing teachers to adopt a good method of exciting interest and thought in their pupils.

The last and crowning feature of the recitation is the application of what has been learned in as practical way as possible.



Thus is given in four or five steps a method of hearing the recitation which is full of suggestion to thoughtful teachers.

Having said so much of the every-day uses of Herbartianism, I desire to give in conclusion a word of warning and of criticism. The warning, which may apply to other theories than those of Herbart, is that of a too close adherence to prescribed rules. There is a cramping and deadening formalism which must inevitably follow a slavish obedience to the dogmatic utterances of a master. That the disciples of Herbart err no more in this direction than do those of any other master whose philosophy descends to details, is no reason why we should not hold up to them the warning—especially when it is done with a strong assurance and hope that they will continue to expose the weaknesses of the schools and to show by their skill and devotion the stimulation of a philosophical method.

The criticism, too, that I have to offer may apply to other systems of philosophy quite as well as to that which we are now considering. It can be no unwarrantable assumption of knowledge, either of philosophy or of future needs, to assert that no one philosophy, short of revealed truth itself, can meet the conditions of all time, and that, therefore, we should use our systems of psychology and methodology as enlighteners rather than as infallible guides, as lamps to show the ways rather than as ways themselves.

Especially should they not close our eyes to the highest function of our calling. For one I can but feel the lack of spirituality in this and all other systems of philosophy which claim to be a guide of teaching, the



lack of a recognition of causes and final ends. A system of mind knowledge or mind culture which does not recognize the divine element and power in the child and which does not look forward to his final destiny as a human being, is incomplete, and, if followed closely, it must be misleading. That there are many men and women who, from a spirit of reverence and from a sacred regard for their high mission, do this, I believe to be true; which may lead us to wonder after all whether the personality of the teacher does not stand before any and all man-made philosophies. But we cannot afford to cast aside our educational guides altogether, imperfect though they may be. They may, at least, help us to meet some of the present perplexities which confront us; but let them not so blind or bind us that we cannot deal with the child as a spiritual being, that we may not lead him to that "complete living" which stops not at natural minded morality, but which extends even to the domains of heaven itself. Our highest work as teachers is inspiration—an inspiration which will not merely check all forms of outward evil but which will put into the heart a true love of the neighbor. Thus only shall we obey the command to bring forth "fruit that will remain."

A system of pedagogics with such an end in view will be hailed with joy by all Christian teachers, and its every-day uses will be surely felt even though they are not clearly seen—but such a system we are still hoping for and waiting for.

## XII.

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### **UNIFICATION IN PRIMARY SCHOOL WORK.**

BY MISS SARAH L. ARNOLD, SUPERVISOR OF PRIMARY SCHOOLS,  
MINNEAPOLIS, MINN.

The topics announced for discussion this morning give evidence of the recognition of the great need of the schools of to-day, and of the conditions whose burdens are felt by all teachers and all friends of the schools, however they may fail to recognize the rule whose violation imposes their weight. Our schools are totally unlike those of a half century ago. What a simple thing then to "keep school" as the phrase ran. How little preparation was demanded of the teacher. How limited was the curriculum of those days. We have embodied its substance in a phrase which is still the strongest opponent of the so-called "New Education," because in it is enshrined the old idea of the scope of school interests. The "three R's," reading, writing, and arithmetic, were supposed to give the child the essentials of education. One who could "read and write and cipher too" was fairly educated, and if the common school had fitted him to work in these three lines, it had done well.

It is not hard to trace the new developments, the aspirations that demanded more for the children. In this fair republic, where every man may be President, no parent is satisfied to let his child stand still at the

line where he himself had measured his privileges. His boy must have more than he had had. His girl must share the opportunities that her mother had longed for in vain. Teachers could be better paid, longer time could be given to the school course, the door of the little red school house opened to allow the children to pass to the academy, and in ever increasing numbers, on to the college. More, therefore, must be asked of the common school. The children who went on through the academy or college course must be better prepared, and if so, the same advantages must be accorded to their mates.

Further than this, the students of education have steadily, patiently, persistently, demanded of the schools something more than they had ever given. "It is not enough," they say, "that the child shall learn the paltry facts that enable him to barter with his neighbors, to measure dollar for dollar, to read the petty items of the newspaper, to record the transactions of a life unworthy of record. The end of school life should not be to lead the child to these few crumbs of knowledge. He should be so taught that he shall grow through the teaching. Mind, body, and soul should be thoroughly trained and equipped for a life worth living." Growth, training, discipline of all the powers of the child, these they require of the school, and more and more the ear of the people, never indifferent to the best interests of the children if once these interests are recognized, has opened to this higher demand.

This awakening has borne fruit in the school-room. The school programmes of to-day chronicle the new thought. To the "three R's" have been added music,

drawing, algebra, history, botany, zoology, fuller study of language and literature. These appeared first in the high schools, which were created to make opportunity for them; but the friends of the children still pleaded "Better teaching for the little ones, better work in the beginning." Slowly answering to this demand, there have grown up in the primary schools programmes which include subjects formerly to be found only in the college curriculum. Teachers often express the state of affairs in this wise: "We have to teach the children to read, and write, and spell. They must know everything about a number before they can leave it. They must sing by note in the different keys, they must draw from the object, they must know geometric forms, they must be taught botany and geology and physics and mineralogy and history, and morals and manners, and they must have physical training. All this for little children between the hours of nine and four." "Absurd," cries one. "Impossible," exclaims another. Mothers who hear the long list recited are anxious for their children. Newspapers publish columns on cramming in the public schools, and teachers who feel these claims thrust upon them, grow helpless and despairing, unless they recognize the purpose which would interpret their work, ensuring harmonious growth as a fruit of their earnest labor.

We acknowledge the condition of things which may and does often exist in our school-rooms. Better than the newspapers and the magazines, than mothers or fathers even can tell us, we know that many a teacher is overwhelmed by the demands made upon her, and

that many a child gathers from his school work a basket of fragments. We know that many subjects are so presented to the child that he is lost in detail, cumbered with facts, but that he does not gain from his school training the growth, the strength, the power, that right training should give. The reason for this condition lies in the fact that the schools have yielded to varying demands, have placed upon their programmes the names of subjects that were supposed to be helpful to the child, while failing to recognize the foundation principles which alone can make these subjects minister to his highest good. Either we are attempting too much or we are working in wrong lines. What can be done to bring order out of chaos, to give life to our work, to free teacher and child from nervous pressure, from vague and fruitless endeavor?

The subject of this paper names what seems to me the one means by which this work can be accomplished. The school course must be unified. All lessons must be brought to work together for the good of the child. His school life should be one harmonious whole, every part working with every other part for the accomplishment of one great purpose, and this co-working, this co-ordination, can be brought about only by the recognition of this purpose. This furnishes us the key to the entire problem. In order to answer any of the minor questions which suggest themselves, we must come ultimately to one great question,—why does the child attend school, and what should he get there?

The answer to this question is an important one. It marks a radical revolution in the thought of school men. It speaks what we must universally approve,

whether we have consciously stated it or not. The end of all education is the formation of character. This cannot be accomplished by the school alone, but all the forces which help the child to grow,—his home life, his friends, his church, his school, his state,—should be working together to teach him how to live a brave, manly, upright, useful life,—to become capable of using all his powers for the benefit of his fellow-men,—of recognizing ideals which lead to such use and the development which this use demands. He must love with all his heart the good, the true, and the beautiful. We cannot accept this result for education as a whole without accepting the school's share in obtaining it, and, therefore, we must choose such teaching as will help to reach these ends. Courses of study should be made with reference to the accomplishment of this end; both matter and method should be so selected as to ensure the child's growth, and in lines most to be desired.

What then shall we teach? *What are the essentials?* If we declare that the purpose of education is to teach the child how to live, it follows that the essential study in school and out is the study of life. The meaning of his own life is the one great problem set before the child. He should be taught to observe the life about him, to think of what he sees, to imagine the lives of others,—through this study he himself will grow. All around him lies the world of nature; this wonderful life with its manifold teaching. Here must his little life be spent, with the rocks, the trees and flowers, the brooks and the hills. Shall he not be taught to read the messages which are here written for him; to learn

what all this life is saying, that has to do with his own eternal welfare? From his cradle to his grave he comes in contact with mankind. No act of his but is bound up with acts of others, is influenced by what others have thought and done before him, and out-reaches to other lives. He should study the life of man, should come to recognize the high ideals, the great truths that have influenced it, the constant growth in righteousness and the mighty endeavors for progress. Such lessons must begin with study of common experience,—his own home life, his father's work, the occupations of his neighbors, the trades carried on in the little village where he lives. This school of experience helps him to read life as expressed in history and literature.

Briefly, then, the essential studies are those which involve the study of nature, and the study of human life. The first includes observation of the natural forces, study of plants, animals, minerals, geography. The study of human life demands the observation of experience, the study of history, literature, geography, as expressing both the ideals and the laws which modify human life. These the child must have, but these involve knowledge of number, of reading, of writing, of drawing, of spelling; all of which are needed as a means to this larger study, and to the expression of the thoughts therein gained. These enable the child to add to his own experience the knowledge gained by others.

Reading, writing, spelling, are valuable *only* when they help to thought getting and thought giving. These must be well taught, not as ends in themselves,

but in order that the child may win the larger knowledge. If we recognize this truth, we can make these formal studies contribute in greater measure to this higher result.

I can best illustrate this selection of subjects by reference to the course of study which has grown up in the primary schools of Minneapolis. Accepting the classification above, we have prepared a course which makes the important study the general lesson (a term used for convenience to designate the subjects chosen for our foundation work). This lesson occupies the first period of the day, from twenty minutes to half an hour in every daily programme. Taken throughout the year one half of this time is given to nature study, the other half to lessons in history and related literature. The work in nature study varies with the grade, the season, and the environment of the child. In the fall, the time is given to observation of fruits, vegetables, the fall flowers, the changing season, the falling leaves, the preparation for winter, and the thought of the harvest. Great stress is laid upon the natural environment in the selection of specimens. The child who lives near Minnehaha Falls studies the productions of that region, or the formation of the country, and learns through life at home to interpret that in unfamiliar places. The child who lives in the city studies the trees, the plants, the birds which he sees in his walks to and from school, or the fruits and vegetables which the market stand supplies for him. In both cases the lessons are emphasized and interpreted by excursions which give the child a fuller appreciation of the life of nature. In the winter, when natural



objects are not so easily provided, the history lessons are emphasized, but the nature study begins again in the spring. Animal life as represented in our rivers, lakes, and fields is studied at first hand by the children. They bring cray-fishes from the creeks, snails and frogs' eggs from the swamps, fishes from the lakes, and study the life of each. The coming of the birds has its lesson for them. Insect life awakens their interest. The opening of the winter bud, the coming of the first spring flowers, the bursting of the seeds, and the lessons of the sowing, must now be considered. What abundant matter here for thought giving! How necessary the reading, and writing, and spelling, in order to get more thought in these loved fields and to explain that already won!

The lessons in literature and history which occupy the twenty weeks of winter are simple, but carefully related. Our hope is not to give the child an insight into the philosophy of history, or the power to analyze literature; but, rather, we select from history companions for his thought and give him new ideals chosen from the best of literature. The lessons are concrete studies suited to his comprehension, and are told over and over again. The first grade children study the life of the little Esquimau sister, or of Hiawatha, and learn the story of Columbus and Washington. Following their harvest study comes the story of the first Thanksgiving, of the hard winter at Plymouth, and the life of the early Pilgrim. The children of the second grade study the grand Norse myths, partly because these old stories are so attractive to our Anglo-Saxon spirit, and partly because so many of the Minneapolis

children are of Scandinavian origin, and it seems right to give them this first idea of the old life in the Fatherland. In the third year, when the children are making their beginnings in the subjects of geography, the history and literature are made to help them understand their new work. Stories of the early explorers,—of Hennepin and Nicollet and La Salle, of life in the first frontier settlements, and in the old world at the same period, form now the basis of their work, about which their lessons are centered.

In the fourth grade the subjects are chosen in line with Miss Andrews's excellent book, "Ten Boys on the Road from Long Ago to Now," and the work in history centres about the life of the little Aryan, Persian Greek, and Roman boys. Thus the child in these first four years of school observes, thinks, imagines in these two lines, studying the life of nature and of man. Each lesson prepares for the later knowledge getting in science, history, and literature, through giving the child clear concepts which enable him to rightly interpret these studies.

So much for the emphasis given to these subjects in this general lesson, which occupies the first period of the morning. All this is arranged for the teacher by those who prepare the course of study, but this is of no avail unless the teacher herself appreciates the purpose of this selection and recognizes the relation of one lesson to another. She must prepare the daily lessons and see that they are rightly co-ordinated.

One misfortune of the graded schools is that no teacher follows the child's course from beginning to end. She sees but one section, covering, perhaps, six

months or a year. Her part is to see that in this period of time the lessons are in harmony with the controlling plan whose purpose she recognizes and approves. If she is able to stand outside her work enough to see the relation of her teaching to that which has preceded and must follow, she can take hold of hands with the others who, like her, are working for the accomplishment of this purpose.

Recognizing this final end of her work, all her lessons will tend toward this one end. In proportion as she appreciates the principles which underlie good teaching and brings to her work broad knowledge of both principle and subject taught, will she succeed in properly relating her lessons one to another, emphasizing that which demands emphasis, and subordinating the lesser to the higher.

The teachers in Minneapolis have accomplished this in some degree. We have made a beginning in all our schools. The general lesson, for instance, presents to the child some thought in nature. We will suppose that he is studying corn, because there is a corn field near the schoolhouse, or because the fall study of plants includes the study of the abundant seeds, fruits, and vegetables. He observes the plant in these morning periods, studies stems and leaves, blossoms and fruit, comes to see for himself the plant's beauty and grace, marvels at the arrangement of the leaves, the curious tassels with their pollen boxes, the delicate wrapping of the ear, the long tubes of silk which have borne the pollen to the waiting ovary. He does not see as the scientist would see, nor as the poet, but his spirit partakes of both.

As far as he sees he sees truly, and a reverent, up-looking spirit in his observation leads him to recognize the marvel and mystery in this life and turns his thought to the Creator.

After this morning study, comes the reading class. The children talk about the lesson they have just learned. The teacher paraphrases their little sentences, writing upon the board in their words, a description of the corn plant. This is their reading lesson. Their hearts are full of it because they love their work and rejoice in what they have learned. They recognize the necessity of reading and writing to express this thought which was their own, which they rejoice to possess and to share. A strong bond here holds together the nature lesson and the reading. We have found that the child learns to read with wonderful rapidity when he recognizes from the beginning that this reading expresses the thought which he desires to give, and opens to him an avenue for obtaining the thoughts of others which he equally desires to get. Unwilling to leave the child with the thought of the corn as limited by his own vision, the teacher reads to him Whittier's Corn Song, a lesson in language or literature, if you please. The class talk about it, memorize it. Some of the words become their own. The spirit of the poem passes into them. They see more in the corn-field the next time they look upon it. They behold it with something of a poet's eye. For the writing lesson they copy some sentences expressing their thought of the corn. They draw the plant as it stands leaning against the table, and drawing the more deeply impresses the beautiful image upon their minds

and hearts as well, while they grow in the power of seeing and expressing. Their writing demands word study, spelling, and suitable words are selected from their description or from the poem which they have recited. The teacher who is in the spirit, as every good teacher is on every school day, reads to the children the story of Hiawatha and his wrestling with the Mondamin, the beautiful legend which Longfellow has told in his exquisite poem, dear to every child heart. This series of lessons suggests the day's programme. You who have taught in primary schools, know that it would stretch over many days and reach out to take in other subjects. This wonderful seed leads to the study of seeds, their use to us and to the plant, the manner in which they are planted, the marvelous provision which God has made for their distribution. With the thought of the corn comes, too, the thought of the harvest, and Thanksgiving. Here is another connection between this plant and the life of man, the thought of the food supply, of the men who work to give it to us, the number who must toil that we may be fed ; and quick beside it, the thought of our own responsibility, to fit ourselves likewise for the service of man, to minister in some way to our fellows, as God has given us power. The children sing, "What wonderful things are hidden away in the little heart of the seed," or their beautiful Harvest Hymn. Before this series is finished we may have in our teaching, all that we ask for the child in school ; reading, writing, arithmetic, geography, spelling, language, history, literature, music, physical training, with an earnestness and harmoniousness and ease which belong with right growth, with methods simple, prac-

tical, scientific, when rightly comprehended, and with an uplift and inspiration that comes of dealing with high thoughts, thoughts with power to sway and ennoble. There is growth for both teacher and pupil here, and the work is simple, sound, wholesome. There is neither cramming, nor rushing, nor hurrying. The child learns to read and write and cypher. The three R's are surely there, but he learns these as means toward a greater end. His knowledge is constantly being applied to right uses. He feels that he is growing. The teacher grows too. That knowledge makes the work easier than it has ever been before. This is the constant testimony of teachers who are just beginning to learn this way. And if this is true of the work in the beginning, how much more shall we rejoice as it grows with their fuller comprehension of the truths we are stating.

I have outlined the *beginning* of the work, not the highest ideal, indeed, but the next step from our present standpoint. Here is something which the teacher of to-day can do in the every-day schoolroom with the children to be found everywhere ; it is the first step in advance. We recognize it simply as such and consider it as holding a promise of better things.

It is but fair to speak of the obstacles in the way. They can be overcome, but they are there. They lie in the lack of breadth on the part of the teacher ; breadth of preparation, discipline of mind, insight into child life, comprehension of the laws which govern all life, and in the meagerness of material. Yet I have felt in all my school work, and I feel it more and more deeply, that the power of insight, the capacity of aspi-

ration in the teacher, is that which is most needed to rightly interpret life to the pupil. This comes of *living*, and it comes in no other way. The teacher who lives a life of high aspiration and delicate perception and strong sympathy, who rightly interprets the life about her and recognizes the highest where to dull eyes only the lowest is visible; *this teacher* will lead the children into a knowledge of life, and she only can. This teacher recognizes unity in life. She can grasp the great purpose in teaching her lessons, and will naturally fall into line with this purpose. With her, co-ordination, unification, are more than terms. But there are teachers who have not this power; to whom the spirit of the work is incomprehensible. To them, unification is as mechanical as the multiplication table may be made to be. It is superficial, an entirely outside thing. Whether it is great or little, good or bad, depends, as do all good things in the school, upon the teacher's power of interpretation. We shall not decry the Golden Rule because our lives fail to interpret it rightly, nor shall we lose faith in the principles of co-ordination because it is sadly distorted by bunglers in the art. I shall never forget a sequence of related lessons prepared by a teacher when her pupils were studying animals. The children had brought a white mouse to school. She sought high and low in every book of quotations for some poem in which mice are mentioned, and ended in having the children recite the proverb, "When the cat's away the mice can play," and in teaching them to sing "Three Blind Mice." The instance would be laughable if it were not so sad, as a type of the work done when the teacher sees only skin deep. And quite

as pathetic is the question given to a class in number, after a morning talk about the mighty Thor: "If Thor's glove cost fifteen cents, how much would two gloves cost?"

Quite as laughable or as pathetic, are the books which flood the market, like "The Temperance Arithmetic," founded upon the supposed principles of unification, which require the child to reckon how many barrels of beer would be drunken in a lifetime by a man who drinks so many mugs a day, or how many pounds of tobacco would be required to be smoked by one man at the rate of a certain number of cigars a day, and how many yards of carpet or how many books the poor wives might have bought with the money thus squandered. Almost as far-fetched and as unmanageable in the school-room are the applications of arithmetic to science, which assign to the child, as the steps to his entire knowledge of arithmetic, problems estimating the percentage of soil turned up by earth worms after a rain of so many inches, and kindred work. The unification of all work in the school-room and in the world outside the school, requires that we apply our stock of common sense, our sense of the eternal fitness of things. This will help us to recognize the steps or topics which lie in the same lines of thought and experience and would keep us from the hopeless conglomeration of incongruous facts grouped because of superficial resemblance.

What do we gain then, by correlation or this attempt at correlation? We gain in time, the gain that always comes through systematic arrangement of work, systematic organization of labor. We gain in interest



because the child is consciously growing, because the teacher, too, grows with the work, which in its nature is life giving. We gain unity. The child remembers because the facts are naturally grouped and one suggests those related to it, because the relation of lessons demands constant repetition of the knowledge once gained and the constant application of this knowledge in daily life. What the child learns remains with him. We gain in power to recognize essentials, to separate the chaff from the wheat. Our effort is centered upon that which is worth the getting. We gain in ease in the work, doing away with the friction that must always come in unintelligent, hap-hazard work. We gain in the simplicity as we approach to truth.

Let me go back a moment to sum up the few points I have tried to make. The schools of to-day, with their multitude of subjects, demand some power or purpose which shall organize and classify our work, bringing order out of chaos, and harmony out of confusion. This purpose comes of recognizing the great aim of school life, fitting the child to live and to interpret life, to make his home life in every way a pleasure to himself and to his fellows. It helps us to select for the knowledge subjects, those which will give the child the best knowledge of life, life as shown in nature, in history, in literature. All other subjects are taught simply as a means to getting knowledge. The child gets life thoughts from them, is eager to express them, earnestly accepts the means of expression, and grows through the getting and giving of his thought. The recognition of this purpose on the part of the teacher, enables her to classify

her lessons, to group them so that the child develops his varied powers while working in related lines. So unity of purpose allows variety of subjects, yet relates all to the one great end. The comprehension of the principle of unification enables the teacher to do her part in bringing to the school-room a day when all things shall work together for good.

## XIII.

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### ILLUSTRATIVE SKETCHING.

BY HENRY T. BAILEY, STATE SUPERVISOR OF DRAWING,  
MASSACHUSETTS.

MR. PRESIDENT AND FELLOW TEACHERS: Owing to a constitutional defect, I suppose, it is difficult for me to deal with abstractions. My mind slips into figures and images. And it has occurred to me lately that the mental pabulum administered to the rising generation by the public school is a sort of broth, made from numerous diverse elements simmered for years over a slow fire. Owing to too many cooks—or to not enough—the precise receipt for the most potent liquor has not yet been found, and so it comes to pass that ever and anon some new cook throws in some new ingredient. Once it was drawing, once music, then manual training, then military drill and cooking, then sewing and sloyd, and lately it has been nature studies and the Ling system. Even now an attempt is being made to “enrich” it, and a “committee of ten” has been stirring it. This broth seems to be somewhat chemical; for each new element produces such effervescence that for a time the pot threatens to boil over. Everybody discusses the situation,—old things are to pass away and everything become new! But the spluttering is brief—that which is violent

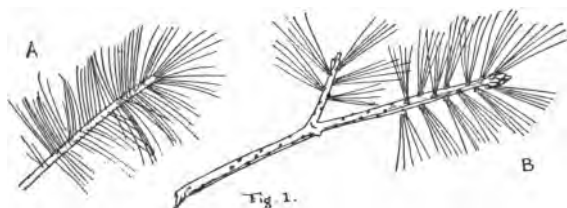
is n't lasting—and presently what promised an elixir of life has yielded but a new flavor to the same old broth. It improves but slowly, but thank God it does improve.

Illustrative sketching is a recent addition to the educational pottage: not so noisy as many another, but quite as potent, judging by the last exhibitions. Geography and history papers once prosaic are now illustrated with cuts. In mathematics and the sciences pictures abound, and even language and literature have not escaped without illumination. In some places drawing as drawing is no longer taught: illustrative sketching has driven it from the curriculum. Is this best? The injunction is, "Prove all things; hold fast that which is good." That there is good in illustrative sketching no one doubts; but that it is all good can scarcely be maintained in the face of recent developments. Our purpose at this time is to "prove" illustrative sketching, that knowing the good in it we may hold that fast, eschewing the evil.

1. Illustrative sketching is a reaction against technical drawing, just as language was a reaction against technical grammar. The two—drawing and grammar—have been analogous. As a long course in grammar has often produced perfect examination papers but seldom accurate English in ordinary conversation, so drawing, as it has been taught, has often produced creditably filled drawing-books, but rarely the ability to draw common objects. Drawing teachers have advocated the free use of drawing in other studies, and then have practiced methods of instruction which make such use well nigh impossible. The advocates

of nature study, not the drawing teachers, have had the honor of opening blind eyes to see drawing as a living language within the reach of all.

2. Illustrative sketching is drawing in connection with other studies. It is applied drawing, just as language is applied grammar. And as in the best English every word embodies an idea, concisely, correctly, happily,—so in the best illustrative sketching every touch is the embodiment of an idea: not a dot nor a line is without meaning. As an illustration of this, compare these two sketches of a soft pine shoot.

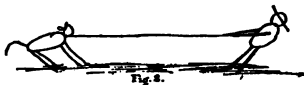


The first may be found in almost any school-room, and is worthless. It embodies no essential idea. It may represent almost any plume-like thing. But in the second every line and dot is significant. This pupil saw how the stem began and how it ended; how the needles grew in bundles of five; how they were arranged upon the stalk; and how they come in crops—three crops indicated at once—this year's by needles present, last year's by scars, next year's by buds. This is good illustrative sketching: every touch embodies an idea gathered from the object.

In artistic illustrative sketching only the essential and characteristic ideas are embodied; and strange as it may seem this is true of the sketches of the youngest

pupils. I might give illustrations of this, almost *ad infinitum*, but one must suffice.

This is Frank's reading lesson about "a boy trying to make a calf go." You question Frank about a calf's head or feet, and he can tell you many things not even hinted of in the sketch. He knows that a



boy has eyes and nose and mouth and ears and hands and feet; but what of it?—everybody knows those things. But everybody did n't know about this tug of war. The one essential and characteristic idea to be embodied in *this* sketch is opposition of forces, and just that is what Frank has expressed.

3. Nearly or quite all children have the ability to make illustrative sketches. They begin to draw before they begin to write—before they come to school. In school they begin with their crude drawings upon the slate, meaning little to the teacher but much to themselves. Too often such use of time is discountenanced. A boy who has been drawing horses and ships and railway trains is reduced to copying I I I I I, over and over again! By and by the teacher in an upper grade says to him, "Make a sketch of this but-tercup." He replies, "I can't." Do you wonder? An unused organ or power soon becomes atrophied. The pupil should have been encouraged, not "sat upon."

4. Not only should early illustrative sketching be encouraged; it should be *directed*; and first in the *choice of subject*.

Not all lessons may be illustrated. In language

and reading illustrative sketches should be made by the pupils whenever such sketches will assist in producing clear images. Good reading depends on good imaging; so does clear thinking. The boy who is reading prose, and, turning two leaves at once by some ill luck, strikes into poetry, and keeps on without discovering his accident, is not forming very clear images as he reads, and after all is not reading. The boy who wrote "Some squash vine blossoms have statements and some have pistols: those with statements make no squashes—no fruit ever comes from a statement," might have known what he was talking about if he had made an illustrative sketch of an unfruitful "statement."

In number and arithmetic illustrative sketches bridge the gap between the concrete object and the abstract idea of number. These sketches should be of such a character that the idea of number may be uppermost, not that of form. Even then the objects

selected for illustration can not be too simple. There is but little educational value in such typical work as that

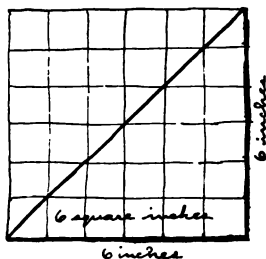
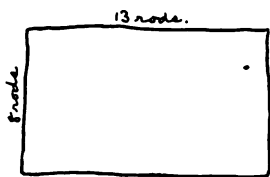
$$\bigcirc \bigcirc \bigcirc + \bigcirc \bigcirc \bigcirc = \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$$

Fig. 3.

shown in Fig. 3. Apples (?) plus plums (?) do not equal half-notes (!) !

To require children to sketch seven complete buttercup plants—roots, stem, leaves, and flowers—to learn  $7 \times 5$  (each buttercup having five petals) is about as Chinese as burning one's house to taste roast pig. Yet I know intelligent teachers who have required just that, and similar absurdities. In the more advanced work an illustrative sketch will sometimes

make clear a condition, as in the fencing of a field, Fig. 4, or illustrate a principle, as in determining the area of triangles, Fig. 5.



Figs. 4 and 5.

In history the illustrative sketches should be limited to maps and diagrams showing paths of discovery, routes of travel, plans of campaigns, movements of armies, acquisition of territory, etc., and to representations

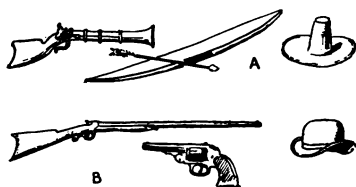


Fig. 6.

of characteristic details which aid in giving to the pupil a clear picture of the times and events about which he is studying. These will

include details of dress, household utensils, weapons, means of conveyance, etc.

At A, Fig. 6, are details as characteristic of a past age as those at B are of the present. The "Mayflower," Fig. 7, recalls one world, the "City of Rome," Fig. 8, brings before us another. Such sketches are valuable,



Fig. 7.

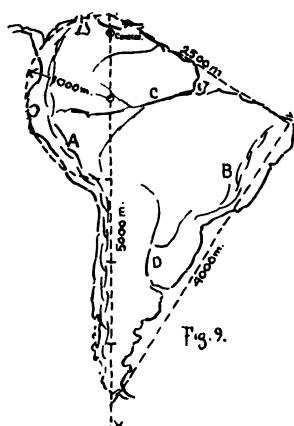


but a child's sketches of Columbus, or Sir Walter Raleigh or Washington are about as valuable historic data as Doré's portrait of Adam. Time spent on such work is wasted.



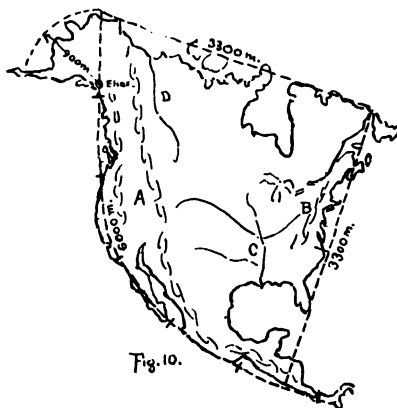
Fig. 8.

In geography, of course, illustrative sketching takes the form of map drawing. Forgetting that a child's map can be at best but a sketch, and that in it he is to embody ideas of form, size, etc., many teachers have advocated questionable methods. A sketch map is to embody, in the order of importance, ideas of the continent. If the pupil begins by ruling a 7x9-inch oblong, subdivided into meshes with the hope of catching therein South America, he will be taken in his own net and robbed of his ideas, if he ever had any. "How long is the continent of South America?" I once asked a lad who had been working industriously fifteen minutes on his diagram. "Nine inches," was the reply. "Are you sure?" said I. "Oh, yes," said he. "See!" as he placed his ruler upon the paper, "I have it just right." Not one teacher in twenty-five can tell the length of South America, although they have all taught a half-dozen classes to draw it. But here is a vertical line representing five thousand miles; it is subdivided to show a thousand (see Fig. 9); with a radius of a thousand miles the sweep of the whole



upper half of the west coast is indicated. A twenty-five hundred-mile distance set off from the top to the right to meet a four thousand mile distance set off from near the bottom, locates the cape St. Roque. Four lines have been drawn, and they give the general shape of South America without fussing with inches and sevenths and ninths and upper left-hand corners of oblongs down

from the top and in from the side. Having indicated the size and general mass of the continent, the outline claims attention as the next important idea to be embodied, then the great mountain system A, and the echo of it, B. The water-sheds lead naturally to the river systems C and D, and the map grows as the pupil embodies other ideas in the order of their importance. With North America the first line is the six thousand mile curve passing through the eighteen thousand foot



mountain (see Fig. 10). From either end of this curve it is thirty-three hundred miles to the strait of Belle Isle. A radius of nine hundred miles from the top of St. Elias locates Point Barrow, Cape Lisburne, Unalaska, and Vancouver. Hatteras is half-way between Labrador and Costa Rica. Three lines indicate the size and the mass; these, with the five located points, give sufficient data for sketching the outline. A and B, C and D, are the next facts and so on to the limit of the pupil's ability.

If the pupil is to "draw a map of Europe in two minutes while he is talking," as Superintendent Aldrich says he ought, some such method as just outlined must be followed. The pupil must be led to make a clear, simple statement of characteristic and fundamentally important facts,—nothing more. He'd better locate correctly the boundary between Germany and Russia than to spend his time making ripples around the Emerald Isle or fringes for the Pyrenees.

In natural science the sketches must be truthful. The child too often attempts to design plants and animals as many "artists" do. Let us follow Emerson's advice and teach him to "use plain speech, give us facts, and honor his own senses with trust." But we must remember that unless he sees more than stalk and leaf and petal, more than size and proportion, more than number and color, he is getting only what he used to get from his picture book, from his sticks and splints, from his numeral frame and his color tablets. He must feel *life* in nature, for only then can nature-study bring its best message to him. He must feel the infinite pulsating life of God here and now in his

world,—the life that vibrates in a sunbeam, that trembles on the moon-lit sea, that weaves the myriad tissues of green clothing the earth with beauty as with a garment, that unfolds innumerable stars and cups and bells of exquisite delicacy and loveliness, that brings forth the countless hosts of insects year by year, that stocks the ocean and stores the forests, that floods the air with song and fills man with thought. This divine life he must *feel*: when he does feel it he will see in every wrinkle and scar upon a dead twig the record of a life struggle; when he does n't feel it all nature has no meaning, and he is no richer than when playing with blocks and pegs or juggling with figures. Illustrative sketching enforces the thought of life, and embodies it. The little child who draws his ground (Fig. 11), plants his seed in it, sketches now the shoot and the root, now the stalk, now the leaves as they come forth, now the flower stalk, the bud, the flower,—sees the little plant actually grow under his hands. Other studies may be illustrated, but these five furnish occasions for the most effective work.

Furthermore, the pupil should be directed in the *order of sketching*.

Both orders have been illustrated already. One is synthetic, illustrated by the



Fig. 11.

representation of the growth of the golden rod. This is the *natural order*. Beginning with a point,—a small part,—the entire plant unfolds, one detail after another appearing as in the growing plant. The other is analytic, illustrated by the sketch of a continent. To distinguish it from the other we may call it the *logical order*. In this case the whole of the object is suggested at once and the parts later. A buttercup, for example, may be best drawn by sketching a circle first and subdividing it into as many parts as the flower has petals. Each petal may then be drawn with the certainty that there will be room for the others. Upon these two orders depends the sketching of all objects whatever.

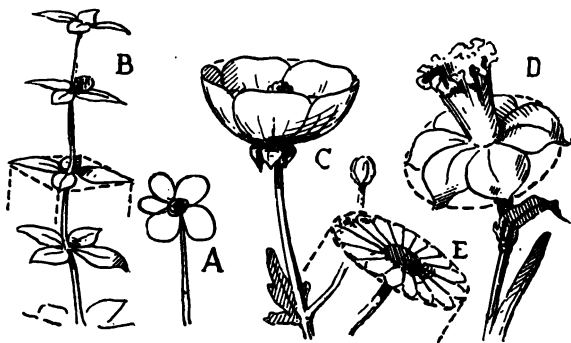


Fig. 12.

5. But illustrative sketching, no matter how attractive it may be, must be reënforced by systematic instruction in drawing. Otherwise it becomes stagnant. Pupils at twelve often make no better sketches than those at seven if they have had no specific training in drawing. The time comes in every pupil's life when

A, Fig. 12, as a sketch of a buttercup is unsatisfactory, he wants a buttercup to "look into." To draw such he must be able to draw the hemisphere (c). Other flowers involve the drawing of a cylinder and cone; some plants show conveyance like a cube; model drawing thus appears as a necessity.

The best teachers have discovered that topical recitation, using one's own words, tends to "smallen" one's vocabulary,—it must be backed by wide reading and supplemented by specific language lessons and choice memory gems if the pupil is to have facility in using rich English. So illustrative sketching cannot stand alone,—it alone can never lead to truthful artistic representation, such appears only when the artist, by close observation, has mastered his object, and by persistent practice has mastered the principles of model and object drawing. Theory and practice, like faith and works, belong together; their separation is to be deplored,—“It spoils two good things.”

Drawing, as a language, has a permanent place in the school. Five hundred years ago it was the universal conviction that reading and writing were of no value to common people, and, moreover, that the masses could never acquire such profound learning. A similar conviction seems to have possessed us in these days regarding drawing. We now believe it criminal to allow any child to grow to adult age without the power to read and write; our successors—not five hundred years hence—will come to a similar conclusion about drawing—the oldest written language of the race, and the only one now universally intelligible.

## XIV.

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### **THE FRENCH, THE DUTCH, AND THE SIX NATIONS IN AMERICAN HISTORY.**

BY REV. GEO. WILLIAMSON SMITH, D. D., PRESIDENT OF  
TRINITY COLLEGE.

The study of history frequently shows us that great events have been determined by incidents apparently unimportant. While powerful forces have been at work and while without them the issue could not have resulted, the preponderance has often been given to one side or the other by some obscure or insignificant occurrence which was seen in its true importance or bearings only when a complete history could be written.

Philip II of Spain sent out the most formidable expedition of his times to conquer England. The Spanish forces in the Netherlands were to be transported by the fleet across the Channel. The whole scheme failed for reasons which have been variously given. The fleet was sufficient, the army was sufficient, but while the army was waiting to embark from the Netherlands and the seamen were waiting for the army to come aboard the ships, it was afterwards discovered that, by some oversight, no proper provision had been made to break the Dutch blockade which prevented the transport of the troops from camp to vessel. Thus, whatever other causes were at work, the failure to pro-

vide for the embarkation of the troops, caused the time of action to go by, and England was saved.

The devout minded see in this the workings of Providence which, by natural means, blinded the aggressors to an obscure, yet vital, detail, frustrated their purpose and then completed the destruction by the natural elements.

Another somewhat ludicrous example of the failure of a great enterprise through an insignificant circumstance may be adduced.

When General Early invaded Maryland in 1864, and, after defeating General Wallace at Monocacy Junction, moved on to Washington, it seemed that the Federal capital must fall. He had a veteran army, while the United States forces were mostly clerks from the civil departments and a hastily summoned militia. There was a moment when it appeared that he could seize the prize before General Wright's corps, sent for the relief of the beleaguered city, could arrive. But for some reason the assault was delayed, and the opportunity was lost. Official reports and state papers give military reasons for his failure; but there are not wanting certain profane men who declare that when Early took up his quarters at Silver Spring, the hospitable home of the late Hon. Francis P. Blair, just outside the forts, where in happier days he had been entertained by the proprietor, he found in the cellar some army stores of unusual excellence, and in the bibulous enjoyment of a recovered luxury, he suffered the time of action to pass. So mouldered away Hannibal's army at Capua; so Washington was successfully defended by a barrel of whiskey!



Whether our theme this evening furnishes a case analogous to that of the failure of the Invincible Armada, you must judge. But it may, I think, be safely inferred that He who knows the end from the beginning, and who has providentially wrought in the "hiding of his power" to cast down and set up nations in the past, has not been unmindful of this great people. I suppose that no New Englander will believe for a moment that the result would have been different if the obscure event which we are to consider to-night had not taken place, but it is only fair to give credit to whom credit is due. The result of English, instead of French, supremacy on this continent is important enough to permit the mede of praise to all who contributed to bring it about. The Dutch at Albany were unconscious of their mission, and may have "builded better than they knew," by their unostentatious but commendable virtues; yet since they were instrumental, as I believe, in the great work, I ask leave to assume that the part which they played in the drama was necessary to the final issue.

Our subject is the relations of the Dutch, the French, and the Indians known as the Six Nations, and the bearing of those relations on the future character of the country.<sup>1</sup>

"THE FRENCH, THE DUTCH, AND THE SIX NATIONS."

For more than one hundred and fifty years the French endeavored to Latinize that part of the conti-

<sup>1</sup> The authorities are "New York Colonial Documents," especially Vol. XIII. (1881.)

Parkman's Books.

Dr. C. H. Hall's address before the L. I. Historical Society.

"Historical Cyclopædia"—French—Paris, 1732.

"Personal Reminiscences of Dominie Simmons."

nent of North America which contains Canada and all of the United States, save Florida and the sea coast from Florida to the Kennebec river, and they nearly succeeded. Documents now published prove, I think, that the country east of the Mississippi was saved to the English largely by the virtue and honesty of a few obscure Dutchmen who happened to settle at Albany. Here they were in possession of the military key of the territory for which the contest was waged, and they held it by the simple power of commercial faith, pledged to the most powerful, treacherous, and blood-thirsty savages on the continent; and by a treaty observed on both sides in a manner which finds no parallel in the dealings of the whites with the Indians.

Such is the conclusion arrived at by the editor of the thirteenth volume of documents relating to the Colonial History of the State of New York, published in 1881.

The stake for which this century-and-a-half-conflict was waged was the possession of the continent west of the Alleghanies and north of the Mohawk river. Thus Frontenac wrote, in 1672,—“The measures which we have taken to confine the English within narrow limits do not permit them to extend themselves except at peril of war.”

Governor Dongan, of New York, in 1685, saw that if the French policy should prevail the English colonies would remain a narrow strip along the sea.

I think that Parkman is justified in saying that “The contest for the west was wholly with New York and her Indian allies,” and that “The result hung on the relations of the French with the Iroquois.”

Our proposition is that by the providential settlement of New York by the Dutch, especially at Albany, the determining factor was introduced, and the French were thwarted in their design.

For the better understanding of our subject, it is necessary to recall something of the geography of the country, occupied by the Indian confederacy, known first as that of the Five, or, after the Tuscaroras were united with them, the Six Nations, and generally called by the French, the Iroquois.

A glance at the region referred to shows that the table-land extending from the Green mountains to the Catskills opens the only natural gateway through the Appalachian highlands of the continent; and stretching across the whole state of New York to Lake Erie, and uniting with the great plains of the west, is a commanding position for military or commercial purposes. If this view is correct, it is not a matter of accident that New York became the Empire state. She is such by geographical position, by prescriptive right. When the French from Canada undertook their work of exploration, which finally resulted in Colbert's grand scheme of New France, they soon found that possession of the Mohawk valley was the condition of success.

When Europeans stepped upon the border of the unknown continent of America, they went whithersoever channels of communication were open to them. There were no roads, and no horses, and the only means of travel were on foot, or by boats; consequently the water-ways were first explored.

From Montreal, where the French had their headquarters, one can push westward up the St. Lawrence

towards Niagara, and thence to Lake Erie. From Presque Isle, where the city of Erie now stands, by threading the narrow stream of Muddy creek and by a portage of a few miles, the passage can be made to French creek, a tributary of the Alleghany river, and so to the spot where Pittsburg has been built; twelve hundred miles from the starting point, and about twenty-one hundred miles, by way of the Ohio river, to the Gulf of Mexico.

Or again, passing north to Georgian bay, along Lake Huron by Mackinac, and up Lake Michigan, one can arrive at New Orleans through the Illinois river, and the Mississippi. It is a very much longer route, and leaves, on the east, country enough for many an empire.

There is another subordinate water-way from Montreal to New York Bay *via* Lake Champlain and Lake George, by Fort Edward and the Hudson. Its importance is shown by Burgoyne's advance, Arnold's treason, and Andre's death.

The plateau referred to above sends its waters into the Atlantic at Sandy Hook, into the North Atlantic by the St. Lawrence, and into the Gulf of Mexico by the Alleghany, Ohio, and Mississippi rivers. It was, therefore, by nature, a commanding position for the scheme of the French, and adverse possession was their defeat.

As the French pushed their explorations south, and west, they became aware of its importance. For reasons to be given presently, the route *via* Presque Isle was closed to them by the inhabitants of this region, and when they had established trading posts by the longer line on the Illinois, and even there found

themselves assailed by the Iroquois, they made every effort to secure the friendship or destroy the power of such formidable foes. The efforts extended over one hundred and fifty years, from 1609 to 1759, during which time the Indian power most to be dreaded by the English, was employed in their service and in defeating the French projects, and it was so far expended in the effort that, when the contest ended on the Heights of Abraham, it had ceased to be dangerous to either party.

It is necessary, in order to understand the nature and vicissitudes of the conflict, that we know something of the character of the parties engaged in it.

Many have sung the somewhat questionable virtues of those Indians "whose invincible arms humbled every native foe, and whose national pride grew with every conquest."

Sometime in the sixteenth century the Indians of the Six Nations had lived around the Island of Montreal, cultivating the soil in a rude fashion, and having for their northern neighbors the Algonquins, a tribe of hunters. These latter finally waged war against them and drove them through forests and over mountains into the central part of New York. There the tribes of the Maguas, or Mohawks, Oneidas, Onondagas, Cayugas, and Senecas wasted each other with fire and tomahawk, until, by bitter experience, they learned the wisdom of union and formed the rude confederacy of the Konosihioni, or Castle Builders. The first tribe dwelt on the Hudson, and along the Mohawk valley, and as keepers of the door of the "Long House," which extended, metaphorically, from the Hudson to

Lake Erie, they were the fiercest of all the tribes. One who was reared on the banks of the Upper Hudson less than half a century ago remembers the constant allusions to this characteristic of these people. Even yet, the old inhabitants will describe a bear brought to bay, or a man blind with rage, by saying that he is as "fierce as a Mohawk." The general council house of the confederacy was at Onondaga lake. Every tribe consisted of three clans, and was a separate and independent democracy, with its totem, or badge, of the wolf, bear, or tortoise. They constructed castles, or fortresses, impregnable in warfare waged by aborigines. It is needless to say that they hated the Algonquins with a hatred almost Christian in its deadliness. After uniting, they began to make successful invasions of the lands of other tribes, until they had carried their totem over half the continent. Their power and arts were so widely known that the Fox Indians, in Wisconsin, learned how to construct fortifications from these foes. Says Dr. Hall, "A single Mohawk has been known to enter a town of Eastern Indians and play for an hour the part of Achilles among the Myrmidons." At the cry "A Mohawk! a Mohawk!" the Pequods, the King Philips, and the heroes of our boyhood fled, like sheep before a wolf.

They subdued the Delawares, took from them all civil power, declared them women, and bade them confine themselves henceforth to the pursuit of females. When William Penn met the Delawares and proposed a treaty of peace, like met like. He found them, as Dr. E. E. Hale significantly expressed it, "Quaker Indians." Shortly before Hooker and his

colonists settled in Connecticut, the Iroquois had passed through that region and rendered it peaceful by the simple process of exterminating the inhabitants. They aimed to keep a broad belt of country unoccupied between the Hudson and the Coast Indians, lest their old enemies, the Hurons, should find aid and comfort too near their borders across the river. On Long Island their sway was undisputed. It is reported that on one occasion a single Mohawk was sent from the confederacy to inquire into a sale of lands to the settlers which, it was claimed, was an infraction of their rights as conquerors; and learning who the offender was, brained him in the midst of the great council, and threaded his lone way safely back through the forest to the council house at Onondaga. So great was the terror these wild men had inspired that one of their number was as safe as a Roman citizen of old.

These six tribes were a terrible people. As Indians, they were not worse than other Indians, but better, because the Indian character was most completely developed in them. Their language, it is stated, shows that they had no habit of reflection. "They were pure children of nature without any powers of imagination. They were infinitely savage. Other nations can reach some depths of crime, but they had sounded all its depths." They imitated the creature on their totem and cultivated its characteristics. They aimed to be as cunning, treacherous, fierce, cruel, and blood-thirsty as the wolf if he had human intelligence to enable him to gratify and extend his blood-thirst. They were insensible to fatigue, to cold, or heat; untiring and insatiable; with no weakness such as

springs from honor or mercy, to check their savage craving for blood. Ferocity was cultivated as a virtue and every emotion of pity stifled as unworthy of a man. The French called them "the ferocious tribes." The Jesuits declared them "the most enlightened and most intractable Indians" they had come across. They boasted of successful duplicity or treachery. The Spanish and Italian courts of former days, the miserable intrigues of medieval ecclesiastics, or the foul processes of ward politics, can furnish but a faint idea of the untrustworthiness of the accomplished Mohawk. Like Danton's six hundred Marseillais, they knew how to die. Like the bear brought to bay, they would silently give their deadly hug, nor turn an eyelid as the keen knife passed between their ribs into their vitals; but expire in fierce embrace with intense rage and without a sign of fear. They were so hated by other Indians that Frontenac found it the most efficient means of securing the good will of those in the service of the French to give them from time to time an Iroquois to torture. But they recognized their kindred. If a rattlesnake struck at them after giving his ominous "rattle," they saluted, passed on and left him unharmed; but if he struck without warning, they hunted him to death, as a creature false to his nature. These people possessed an inherited and educated capacity for infinite hate. Hatred was their religion; torture the ritual of their religion; and with them, as with other people, the women were more devout than the men.

In war they were terrible. Says a writer in 1677, "When they fight, they are very moluchs, and have



merely a waist cloth on with a pair of moccasins on their feet." In the Indian forays which devastated the northern frontier of New England for a half century, such as destroyed Deerfield, and kept pushing back the line of advanced settlements, the few Indians of the Five Nations, who had been converted to Roman Catholicism and removed to the neighborhood of Montreal, were conspicuous among the invaders by their daring, their endurance, and their cruelty. In 1701, a great council of all the Indian tribes known to the French was gathered at Montreal. Many of them came from far; some from a distance of two thousand miles. Thirteen hundred chiefs were present from scores of tribes amounting, in all probability, to over one hundred and fifty thousand men. All had assembled in the hope, and on the promise of Frontenac, of securing peace with the Five Nations. The spokesman of every tribe presented as the burden of his complaint, the dreaded Iroquois who, for nearly a hundred years, had stood between France with all the other Indians east of the Rocky mountains as her allies, and her possession of the interior of the continent. "Father," said the Hurons to Frontenac, "Father, take pity on us, for we are all like dead men for fear of the Iroquois." Preëminent among them all sat their valiant and terrible foes, the warriors of the Confederacy. "Strange," exclaims La Potherie, "that four or five thousand should make a whole new world tremble. New England is but too happy to gain their good graces. New France is often wasted by their wars, and our allies dread them over an extent of more than fifteen hundred leagues."

It was more of a marvel than he supposed, for their number was less than half of his estimate!

As a nation, they launched their canoes on rivers or lakes and assailed tribes as far distant as the Kennebec or Georgian bay. The Sioux and the Chipewas on the north-west, the Miamis on the west, and even the trading-post of St. Louis on the Mississippi, as well as the Tuscaroras and Cherokees of the south, felt their heavy hand. They had supplies on these remote campaigns which the whites knew not of. On a combined expedition of the Iroquois and English when the whites were on the verge of famine, the Indians seemed to have an abundance. The English commander was glad to accept from them the hospitality of a meal, but he lost all appetite when there was dipped out of the broth kettle the hand of a Frenchman which was offered him as a *bonne bouche*.

They were vain and childish to silliness. "Pleased with a rattle, and tickled with a straw." They were drunkards by predetermined viciousness. They had not the first idea of self-restraint. Their chiefs would plead and cry that "the brandy kegs" be kept away from the tribes because no Indian could resist temptation, and rum unfitted their young men to fight; and then they would beg, borrow, or steal a supply and go aside for a debauch as compensation for their efforts in behalf of the good of other people. In family life, virtue was unknown.

Still they had reached the idea of constitutional government, which no other Indians had done. They recognized the obligation of treaties. They made and observed them as no other tribes did. When on one

occasion, the French had stirred up the Oneidas and Senecas to attack the southern Indians, who were in treaty with the English, with the hope of embroiling them with the English settlers, the governor of Maryland remonstrated with them for attacking their allies contrary to treaty, and the Confederacy called the aggressors to account, compelled them to restore prisoners and property, and satisfy the friends of the slain. Suppose these people had been on the side of the French, as all the other Indians were. Suppose them to have been the bitter enemies of the English, as all other Indians became. Would American history have read the same?

Why were they not friends of the French?

One morning in May, 1609, Champlain, a Frenchman from Montreal, with a party of Algonquins and Hurons was engaged in exploring the shores of the lake which bears his name when they were suddenly attacked by a band of Mohawks. Champlain and his companions opened fire, and at the first discharge two Mohawk chiefs were killed and one wounded. Terrified by this new mode of slaughter, the hitherto invincible braves fled to their castles, and told the story of their being attacked by a new race of pale-faces who carried lightning in their hands, and struck their enemies from a distance with the noise of thunder; and that these pale-faces were the allies of their foes, the Algonquins and Hurons.

The same year Hendrick Hudson entered Manhattan Bay and groped his way up the river as far as Cohoes, and returned to Holland to tell the merchants of the great river that bears his name. He, too, on

this occasion came into conflict with the Mohawks and killed some of their number. So it was a "stand-off" between the Dutchmen and the Frenchmen in their first encounter with the members of the Confederacy, save that the latter were allies of the Iroquois foes ; but this difference was vital.

This chance encounter of the French with the men of the Six Nations was followed by grave consequences. The former were compelled to pursue their explorations in another direction than by the Hudson. If they had been permitted to pass down that river, the battle for supremacy on this continent would have ended not on the Plains of Abraham and at Fort Duquesne, but perhaps at Jamestown, and perhaps in a different way. But turned aside by the Mohawks, they pushed along the north shore of Lake Ontario by Niagara, and thence to the foot of Lake Erie. There they met, if I remember correctly, the Senecas, who were the most powerful of all the tribes in the league, and were turned back upon their course and compelled to pass up the cold Ottawa to Lake Huron, thence traverse Lake Michigan, and find the valley of the Mississippi more than a thousand miles from home, and not less than seven hundred miles farther than the shortest distance to its waters by the Ohio.

It was very soon understood by the French that it was essential to success in their project of seizing the greater part of North America to conquer the Six Nations, or to win their friendship. If they could not be secured as allies, they must be exterminated as foes. Said La Barre to Louis XIV, "The Senecas must be attacked or the country abandoned. The Iroquois are

the only people on earth who do not know the grandeur of Your Majesty. My purpose is to exterminate the Senecas, for otherwise Your Majesty need take no further account of this country." La Barre was right. Canada was untenable under the scourge of their devastations, and the Iroquois were a perpetual nightmare to every soul, from the Governor to the lowliest peasant.

It is not necessary to our purpose to describe the successive steps which resulted in Colbert's great scheme to latinize the twenty parts of the continent which the French had explored, permit the Spaniards to hold four parts of the remainder, and confine the English to the one-twenty-fifth that was left. This would be a long story, and is well known. What we have before us is wonder at their failure, and how to account for that failure.

We have indicated the first difficulty. They happened to fall in with the enemies of the Iroquois, and taking part with them at the commencement of the history of New France, were put at a disadvantage from which, owing to the entrance of the Dutch upon the scene, they never recovered.

In 1614 a name was given to the region discovered by Hendrick Hudson. It was called New Netherlands. In 1615, Hendrick Christiansen sat down at the Mohawks' door. He built a truck house and a military post on Castle Island, just below the site of Albany, garrisoned it with twelve men, and called it Nassau. Says Dr. Hall, "A few annual inundations and ice blockades drove them out of it, and in 1623, Fort Orange was built on higher ground, 'just beyond the pines' with

palisades reaching down to the river." By successive purchases from the Indians, Kilian Van Rennselaer became Patroon or proprietor of the region about Fort Orange, and to secure his right by law, was required to plant there a colony of at least fifty families; and thus the Dutchman appears upon the scene.

At this point the Muse of History, if she has survived the War Articles in the "Century" Magazine, finds herself in a most embarrassing position. For several generations she was taught by English writers and American popular opinion to cast down her eyes and blush with shame at the ignoble character and conduct of these settlers. They were, by all the canons of our early years, an unworthy race, compared with the chivalrous French, or fierce-conscienced Puritans. The English "could not abide" a people who gave patents of nobility for success in trade. But within a generation the estimate has been changed, and the pendulum now swings to the other extreme. Prescott and Motley have sung their heroic deeds, and now Douglass Campbell claims for them the invention of cleanliness, free schools, religious toleration, and the whole sheaf of arrows carried in the talons of the American Eagle. So Miss Clio is embarrassed at a "translation" compared with which that of Bully Bottom was a joke. Let us not seek to decide whether the old or new representation is correct. Probably the Dutchman will go on his phlegmatic way subduing the earth as of old, quite indifferent to the unreasoning scorn or praise of "Our own correspondent" who reflects the sentiment of the passing hour.

The Dutch in Holland were divided into Nobles, Citizens, and Boors. They had not conquered their country as more chivalrous people had done, but had filched it from the ocean, below whose surface much of it lies. While the Nobles were of the cream of humanity in culture, honor, valor, gentle breeding, and religion, and the Citizens were unequalled in commercial and industrial pursuits, the Boors were reckoned by outsiders as coarse and stupid, and their name has pointed a proverb. Owing to their political importance, so superior to men of like social grade in other countries, or some other reason, they, and not the superior classes, have been taken as typical of the nation. Hence, the Dutchman was regarded as quite lacking in a sense of the fitness of things. When the English took New York in 1664 he would neither fight nor run away. It would have been folly to fight such a force as Nichols had, and he was too thrifty to abandon his property. So he stayed, and, on the whole, he has done well by himself in New York; and now all men are ready to speak good of him. This people had a habit of doing the most heroic things in a common-place way, as though it were "all in the day's work." Once they actually turned the wild sea upon their homes to defeat their fiercer human foes. Once, in great danger, instead of surrendering on the best terms obtainable, as other people would have done, they made preparations to put wives and babies, and such property as they could carry, on board their ships, abandon their country, and sail away to the far east and found a new empire, where they could enjoy the freedom for which they had fought and shed their blood for eighty years, and broken down

the barriers to liberty which kings had builded for sixty generations. They had been harried by the religious frenzy and bigotry of the Spaniard, until much of the grace of imagination had been shorn from them. Injuries and distresses to the last degree of endurance had failed to crush their stubborn souls. Now such a people will surprise us by doing unexpected things, or by doing them in an unexpected way. There was a great difference between them and other European nations, who were competing for this continent. The men of Plymouth went forth as "Pilgrims and strangers," under the impulse of religious enthusiasm. Lord Baltimore and William Penn also sought here freedom to worship God after their own fashion. The Spaniards and French were driven by what was known to them as religious convictions, which meant, also, a chivalrous national feeling. They came with the cross in one hand and their national flag in the other.

Each of these had a lofty title to their land in America. The Latins had their title from the Pope; the Puritans found theirs in Genesis, chapter 1, and "the invitation of the Indians." But the Indians not having elected Hebrew in their college course, disputed the interpretation, and suffered the penalty of ignorance. According to the good custom of the day they were exterminated for their skepticism, and thus they lost those "little patches of ground" around their cabins, which it was the generous intention of the Puritan statutes of 1633 to leave them as the free gift of Christian charity. But perhaps it did not signify that their title was vitiated by their skepticism, since they lost their lives at the same time.



Now these Dutchmen had no wrongs to escape, no brilliant schemes of new lands to conquer, not even a religion to propagate. They had learned the power of union and the advantages of righteous dealing with all men, when almost by accident they began to colonize this country merely as a part of a commercial scheme. This was the difference between them and other colonists, whose motives demand our admiration with an emphasis that secures it. In comparison, nothing could be more ignoble than the motives of the Dutch, and it is not strange that the muse of history refused for many years to sing their praises save on the equivocal pages of the veracious Diederich Knickerbocker. But as Carr says in his preface to the thirteenth volume of documents relating to the colonial history of New York, "We congratulate ourselves that the first white men with whom the Indians of that section of the American continent had to deal, were the upright, sturdy, even if slow and phlegmatic, Dutch."

The Dutch at Fort Orange were mostly of the lower estate of their own country. They were humble, patient, thrifty, hard working in a stolid, wooden kind of way. They lived hard on small incomes; were peaceable and without chivalry. They had no idea of the great issue involved when they settled at the door of the "long house" of the fiercest, most intractable and most powerful Indian tribes on record. We may think that if they had known more about the Iroquois, had been less dull and stupid, they would have sought a less dangerous neighborhood. But they were pretty well seasoned by Spanish cruelty to

blood-thirstiness of a religious kind, and a pretty bad kind it is—and, somehow, they managed to get along with the Mohawks and other tribes, as they have managed to get along in Java, where because of their sheer righteousness of dealing, community after community has asked for their protection, until 23,000,000 people pay them tribute in order to trade with them ; and they fight for them as they never fought for themselves ; and a few years ago the entire Dutch soldiery in Java was incredibly small. In the same way they managed to trade with Japan when the rest of the world was shut out.

These Dutchmen behaved in a very craven way with the Indians, for they treated them like fellow men. Every settler could choose his lands where it suited him, but he must first "satisfy the Indians" for the lands he should settle upon. They were as just to the Indians as they were to other peoples and dealt with them as equitably. They were wonderfully patient with their ignorance and follies, and dreadfully thick-hided to the annoyances of their vanity and braggadocio. They managed them with consummate address. They had no thought of the land as a deodand or papal gift. They could not have quoted Genesis, chapter first, nor have flaunted the oriflamme and the cross before their eyes. They bought lands and paid for them, making a fair bargain and scrupulously filling the bill. Says Carr in relation to the English policy of claiming lands on ground of Genesis 1st, and "invitation of the Indians," "It is further needless to speculate on the consequences if a like policy had been adopted by the Dutch, for the

result of the policy pursued by them based upon Christian virtue, commercial morality, and the true ethics of civilization are enjoyed by us every day as citizens of the state of New York and the United States." While claiming to be Christians they actually made covenants with pagans, and religiously observed them, just as they would have done with Christians—a thing not usual in that day and not too much encouraged now. The Indians called them stupid and cowardly, but never faithless or false. The documents show that there were disputes between the natives and the settlers, complaints of ill-usage and prayers for redress of wrongs. The Dutch authorities never turned a deaf ear to the complaint of an Indian, however unreasonable or childish. They were so patient, just, and considerate, that the home office remonstrated and wished them to employ military force as a shorter way of settling difficulties. But the council replied that such measures had not improved the trade with the Indians in the Eastern colonies; and they (the Dutch) were a trading company. Moreover, they had not a homogeneous population like Massachusetts, as the freedom enjoyed in the colony had drawn to it men from all quarters, and especially a considerable number from the Eastern settlements who had come into the New Netherlands to escape the "insupportable government of New England." A military force could not easily be maintained under the circumstances, and they preferred to rely upon just dealing. But, my dear friends, who have improved the red man from the face of the earth, do not despise these Dutchmen too much. They did

make some feeble effort to secure respect and to claim kindred with other white people. "They bought the Indian's furs and sold him rifles and brandy, both equally sure to kill." They provided, however, that when an Indian bought rum of them, he must go off a prescribed distance in the forest to drink it. But on the whole, they treated the Indians as men. In practice, by individual temperament, and by laws honestly maintained, they traded with them to their satisfaction. They were the unpicturesque heroes of the common place who can serve as a foil to the other colonists. In a new country, with most undesirable neighbors, in circumstances peculiarly trying, they went on practicing honesty and all the homely virtues as though they were in the swamps and sands of their native Holland. They deserve the praise of "dealing justly, of loving mercy, of walking humbly," although they were called slow-witted and were the sport of quicker intelligences. Sometime, perhaps, the men whose daily life is an even flow of useful activity, will receive recognition: the men who face storm, pestilence, or battle in the same spirit in which they face their daily labor, and take them as incidental to the lot of man. About that time, we may expect the drudgery and the work of the housewife, the farmer and mechanic, the office clerk, and the school teacher to be regarded as not less heroic than important to the welfare of mankind.

These dull, leaden-footed, slow-witted, honest hearted, but, we must confess it, unpoetical Dutchmen, struck a league with the picturesque and poetical, but somewhat erratic and headstrong, Iroquois, who

depended upon nature's genius rather than hard work for their livelihood, such as it was. They found it profitable and kept it with a clear conscience.

The treaty relations were renewed from time to time, but never disturbed. As we have seen, the Mohawks and Confederate tribes were fiercely inflamed against the French when the Dutch arrived at Albany. They wanted arms, and the Dutch wanted the products of their cornfields and their furs. The documents show that the Mohawks were constantly asking leave to purchase arms and ammunition, to war with the French; and the record shows how careful were the Dutch to supply what was necessary for this purpose, and not enough to render them dangerous neighbors. Thus on July 26, 1660, they sent this gracious message: "We give our brothers (the Senecas) a keg full of power, not to use against Mohawks, but against their distant enemies." Had they been conscious actors in the great drama, they could not have taken their part better. At one time the Dutch had no friends but the Iroquois. The eastern colonies were contemptuously set against them, and their bitter scorn wanted words in which to express itself. They invited the Iroquois to abandon the Dutch and join them. But, said the faithful warriors of the then five nations, "the Dutch are our brethren. With them we keep but one council fire, and we are united by a covenant chain." Solicitations, bribes, threats, force, were employed by the French for 150 years to separate them from their Dutch friends, but in vain. They stood by them to the last—a singular instance of fidelity and honorable dealing. The like of it is not

to be found in American history. But we must remember that no Indians were treated by the whites as were the Iroquois by the Dutch. Ah! What a different history of the red men might have been written. It might have been less thrilling, but we should have had more Indians.

When the English took possession of the colony, fifty years after its planting, the Dutch influence continued and the English were wise enough to follow their councils.

This point I wish to emphasize, as it accounts for the fact that the English who were in the habit of coming into hostile collision with the Aborigines, were found in friendly relations with the Six Nations, from the beginning to the end of the conflict. It was due to the Dutch, who had been friends of the Iroquois for fifty years before the English appeared, and whose influence with them for good was recognized by their conquerors. Says Carr: "The English after the conquest of '64, followed in the footsteps of the Dutch in their treatment of the Indians, either because they acknowledged it to be the best policy, or influenced by the preponderating Dutch element who were still the majority of the population of the Province."

Parkman, though unaware of some facts now brought to light, furnishes proof of our proposition that the Dutch policy was adopted and carried out by the English.

1. The English governor continued to be called by the Iroquois, the "Corlear," the name for the Dutch ruler before the advent of the English.

2. In all communications with the Six Nations, the English continued to employ the Dutch. As a single instance, we will observe that Viele was sent, 1684, as envoy to Onondaga, their council-house, the first formal embassy.

3. The apprehension expressed at the end of the seventeenth century, lest the Dutch at Albany who were comparatively few, should side with the French, and thus turn the Iroquois over to the enemies of the English in the war that was impending.

We cannot appreciate the importance of those Dutchmen at Albany, unless we take into consideration the uniform success of the French with the Indians, as well as the uniform hostility between the Indians and the English. The French had given greater offence to other tribes than to the Iroquois, and yet had won them over to their side. Everywhere else their agents were possessed of fascinations to charm the savage mind by their unparalleled heroism, their unequalled daring as traders and hunters, as discoverers and chivalrous soldiers; by appeals to Indian vanity and self-interest, and no less by exciting their respect and fear when they saw all other tribes come willingly under the same influence and themselves in danger of being hemmed in on the north and west by powerful enemies and left to the feeble support of timid and half-hearted allies.

Champlain, in 1615, introduced the Franciscan as missionaries among the Indians, but soon the work was taken up by the Jesuits, or "Black robes," as they were called, or the "Mighty medicine men" of the whites. The story has the charm of romance, the heroism of these men commanded our praise. We may condemn

their faults and superstition, their duplicities and treachery as politicians, but our highest sensibilities are moved when we see Râle defying New England bullets to save his flock,<sup>1</sup> or Père Joques meekly submitting to appalling anguish at the hands of the Iroquois. Their desire above all, was to save the souls of the Six Nations. That was the most glorious work left on earth for men to do. It became a passion with them. They went and died by their hands in numbers. But the few converts which they made were compelled to gather around Montreal, henceforth exiles, lost forever to their friends, and compelled to live among their foes. The French Jesuits seldom failed to win the Indian, but the Six Nations remained unmoved.

With the Jesuit went the trapper and fur trader. He, too, was fit for his work. A religious conscience and patriotic fire fed his fancy. He could cook and tickle the palate of the aborigine or hob-nob with him over raw meat and pounded corn, and ignore the dirt and foulness. "He had the religion of the Pare-aux-cerfs of his most Christian Majesty, and could find a wife in every tribe and mate his constancy to her canine chastity." He could carry his vanity and braggadocio everywhere uninjured, and defy the wildness of nature and the ridicule of the savage. He cared nothing for the rights of man or colonial charters. He, too, had to come back from the Iroquois owning that the Dutch always undersold him,

<sup>1</sup> Râle died not because he was an apostle of the faith, but "the active agent of the Canadian Government." Parkman.



and that the Six Nations turned their backs upon him and his wares.<sup>1</sup>

The only remaining means of overcoming these enemies was force. With their savage allies, the French repeatedly invaded the territory of the Iroquois, burning and destroying in the hope of weakening the nations. But fed by Dutch supplies they presented an impregnable barrier against which the French beat in vain. We need not repeat the story, and only remark that the four thousand warriors who composed the original force, was much reduced and was kept in an efficient condition only by the constant incorporation, by adoption, of captives taken in war. On one occasion they adopted nine hundred at once to recover their strength. There had been apparently some power behind these savage people which sustained them as no Indians have ever been sustained before or since, until the tribes were wasted to mere skeletons. But they held their place long enough, and the closing act of the drama which defeated the French was at hand.

By repeated attacks and invasions for during more than four generations, the French had finally destroyed the Indian power, which, if it had been enlisted on their side, might have changed the history of colonization.

Each English province had lived in selfish isolation, recking little of its neighbors' woes. The Five Nations

<sup>1</sup> And yet it was commercial considerations which were alleged by the Five Nations as the reason why they preferred Protestant ministers to the Roman clergy. In fact, they seemed to have regarded the missionaries as part of the commercial system of both French and English; and a pagan might almost think the same to-day. Said the Iroquois, "If the English sell goods cheaper than the French we will have ministers. If the French sell them cheaper than the English, we will have priests." Trade and missionaries went together then as they seem to do now.

had always stood as guard to their borders and fought their battles. They were supplied with arms and ammunition from the Dutch settlement at Albany to fight the French, while the French were furnishing arms to the eastern Indians to destroy the English. France might have taken or purchased New York in the time of Charles II, and "with New York in French hands, the fate of the continent would probably have been changed. Canada would have gained complete control of her old enemies, the Iroquois, who would have been wholly dependent upon her for arms and ammunition without which they could do nothing." Such is the opinion of the historian. But the opportunity was lost and the long drawn conflict proceeded to its issue by other means.

The French were on the point of winning, while English statesmen were squandering the wealth of their nation in ignoble pursuits, or dickering about some trifling European marriage. It only remained for them to complete the chain of forts which would have shut the English out of the territory between the Ohio and Lake Erie, and confined them to the sea coast between Florida and the Kennebec. But an unexpected political change in England destroyed French hopes at the moment of their realization. By some obscure and trifling accident Pitt came into power in England for two years, and by the masterly activity of Wolfe, at Quebec, Bradstreet at Fort Frontenac, and Forbes at Duquesne, the French power was shattered, their design defeated, and the continent de-latinized. Then curiously enough, it is reported that the Iroquois generally became Roman Catholic in their religion, and French in their sympathies.

We have tried to sketch briefly the course of events which providentially terminated in leaving the English masters of the situation in North America. "The contest for the great West was wholly with New York and her Indian allies," says Parkman. The Indians did the work. As the Iroquois told Schuyler, near the end of the conflict, though all the English colonists had promised aid, they had had to fight the French alone. What has concerned us in this, is the value of the factor, hitherto ignored, furnished by the nationality and character of the first white settlers among these Indians. We believe it to have been a providential thing that the plans for English occupation of the Hudson failed, and that the Dutch came instead. The Iroquois were won to their friendship and before the English came, fifty years passed without its being broken. The treaty was continued with the English, because the Dutch were there, and at their wish. "Our covenant with you," said they to Schuyler, "is a silver chain that will not rust or break. We are of the race of the bear. The bear does not yield so long as there is a drop of blood in his body. Let us all be bears and ruin the country of the French."

Says Carr: "During the century of contention with France, the friendship of the Five Nations, in possession of the great mountain barrier between Armada and the Upper Hudson, turned the scale and counter-balanced the great advantages which lay on the side of France. But for this the whole course of our history might have been changed. New York might now belong to France, and the other states might still be colonies of England."



